

10/665,227

Connecting via Winsock to STN

Welcome to STN International! Enter x:x

LOGINID:sssptal20ltxs

PASSWORD:

TERMINAL (ENTER 1, 2, 3, OR ?):2

* * * * * Welcome to STN International * * * * *

NEWS 1 Web Page URLs for STN Seminar Schedule - N. America
NEWS 2 "Ask CAS" for self-help around the clock
NEWS 3 SEP 01 New pricing for the Save Answers for SciFinder Wizard within
STN Express with Discover!
NEWS 4 OCT 28 KOREAPAT now available on STN
NEWS 5 NOV 30 PHAR reloaded with additional data
NEWS 6 DEC 01 LISA now available on STN
NEWS 7 DEC 09 12 databases to be removed from STN on December 31, 2004
NEWS 8 DEC 15 MEDLINE update schedule for December 2004
NEWS 9 DEC 17 ELCOM reloaded; updating to resume; current-awareness
alerts (SDIs) affected
NEWS 10 DEC 17 COMPUAB reloaded; updating to resume; current-awareness
alerts (SDIs) affected
NEWS 11 DEC 17 SOLIDSTATE reloaded; updating to resume; current-awareness
alerts (SDIs) affected
NEWS 12 DEC 17 CERAB reloaded; updating to resume; current-awareness
alerts (SDIs) affected
NEWS 13 DEC 17 THREE NEW FIELDS ADDED TO IFIPAT/IFIUDB/IFICDB
NEWS 14 DEC 30 EPFULL: New patent full text database to be available on STN
NEWS 15 DEC 30 CAPLUS - PATENT COVERAGE EXPANDED
NEWS 16 JAN 03 No connect-hour charges in EPFULL during January and
February 2005
NEWS 17 FEB 25 CA/CAPLUS - Russian Agency for Patents and Trademarks
(ROSPATENT) added to list of core patent offices covered
NEWS 18 FEB 10 STN Patent Forums to be held in March 2005
NEWS 19 FEB 16 STN User Update to be held in conjunction with the 229th ACS
National Meeting on March 13, 2005
NEWS 20 FEB 28 PATDPAFULL - New display fields provide for legal status
data from INPADOC
NEWS 21 FEB 28 BABS - Current-awareness alerts (SDIs) available
NEWS 22 FEB 28 MEDLINE/LMEDLINE reloaded

NEWS EXPRESS JANUARY 10 CURRENT WINDOWS VERSION IS V7.01a, CURRENT
MACINTOSH VERSION IS V6.0c(ENG) AND V6.0Jc(JP),
AND CURRENT DISCOVER FILE IS DATED 10 JANUARY 2005

NEWS HOURS STN Operating Hours Plus Help Desk Availability
NEWS INTER General Internet Information
NEWS LOGIN Welcome Banner and News Items
NEWS PHONE Direct Dial and Telecommunication Network Access to STN
NEWS WWW CAS World Wide Web Site (general information)

Enter NEWS followed by the item number or name to see news on that
specific topic.

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agreement. Please note that this agreement limits use to scientific research. Use for software development or design or implementation of commercial gateways or other similar uses is prohibited and may result in loss of user privileges and other penalties.

* * * * * STN Columbus * * * * *

FILE 'HOME' ENTERED AT 13:33:17 ON 01 MAR 2005

=> file reg

COST IN U.S. DOLLARS

SINCE FILE

TOTAL

ENTRY

SESSION

FULL ESTIMATED COST

0.42

0.42

FILE 'REGISTRY' ENTERED AT 13:34:33 ON 01 MAR 2005

USE IS SUBJECT TO THE TERMS OF YOUR STN CUSTOMER AGREEMENT.

PLEASE SEE "HELP USAGETERMS" FOR DETAILS.

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Property values tagged with IC are from the ZIC/VINITI data file provided by InfoChem.

STRUCTURE FILE UPDATES: 27 FEB 2005 HIGHEST RN 838819-79-7

DICTIONARY FILE UPDATES: 27 FEB 2005 HIGHEST RN 838819-79-7

TSCA INFORMATION NOW CURRENT THROUGH JANUARY 18, 2005

Please note that search-term pricing does apply when conducting SmartSELECT searches.

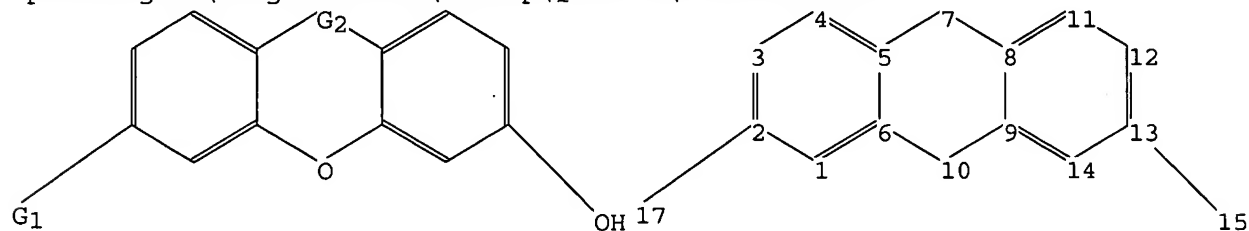
Crossover limits have been increased. See HELP CROSSOVER for details.

Experimental and calculated property data are now available. For more information enter HELP PROP at an arrow prompt in the file or refer to the file summary sheet on the web at:

<http://www.cas.org/ONLINE/DBSS/registryss.html>

=>

Uploading C:\Program Files\Stnexp\Queries\106652272.str



chain nodes :

15 17

ring nodes :

1 2 3 4 5 6 7 8 9 10 11 12 13 14

chain bonds :

2-17 13-15

ring bonds :

1-2 1-6 2-3 3-4 4-5 5-6 5-7 6-10 7-8 8-9 8-11 9-10 9-14 11-12 12-13 13-14

exact/norm bonds :

2-17 5-7 6-10 7-8 9-10 13-15

normalized bonds :

1-2 1-6 2-3 3-4 4-5 5-6 8-9 8-11 9-14 11-12 12-13 13-14

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G1:O,OH

G2:C,N

Match level :

1:Atom 2:Atom 3:Atom 4:Atom 5:Atom 6:Atom 7:Atom 8:Atom 9:Atom 10:Atom
11:Atom 12:Atom 13:Atom 14:Atom 15:CLASS 17:CLASS

L1 STRUCTURE UPLOADED

=> s l1

SAMPLE SEARCH INITIATED 13:35:38 FILE 'REGISTRY'

SAMPLE SCREEN SEARCH COMPLETED - 6681 TO ITERATE

15.0% PROCESSED 1000 ITERATIONS
INCOMPLETE SEARCH (SYSTEM LIMIT EXCEEDED)
SEARCH TIME: 00.00.01

50 ANSWERS

FULL FILE PROJECTIONS: ONLINE **COMPLETE**
BATCH **COMPLETE**

PROJECTED ITERATIONS: 128720 TO 138520
PROJECTED ANSWERS: 6446 TO 8786

L2 50 SEA SSS SAM L1

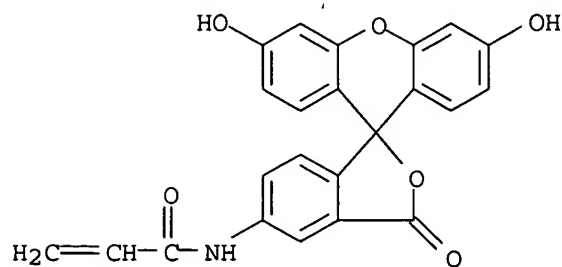
=> d scan

L2 50 ANSWERS REGISTRY COPYRIGHT 2005 ACS on STN

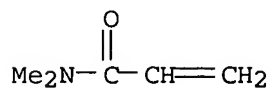
IN Cellulose, monoacetate, polymer with N-(3',6'-dihydroxy-3-oxospiro[isobenzofuran-1(3H),9'-[9H]xanthen]-5-yl)-2-propenamide and N,N-dimethyl-2-propenamide, graft (9CI)

MF (C23 H15 N O6 . C5 H9 N O . C2 H4 O2 . Unspecified)x
CI PMS

CM 1



CM 2



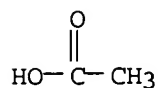
10/665,227

CM 3

CM 4

*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***

CM 5

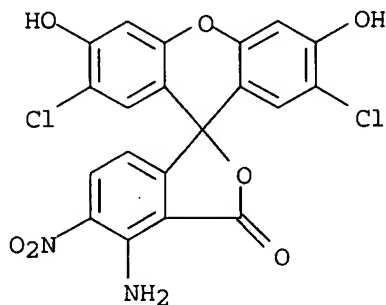


HOW MANY MORE ANSWERS DO YOU WISH TO SCAN? (1):4

L2 50 ANSWERS REGISTRY COPYRIGHT 2005 ACS on STN

IN Spiro[isobenzofuran-1(3H),9'-[9H]xanthen]-3-one, 4-amino-2',7'-dichloro-3',6'-dihydroxy-5-nitro- (9CI)

MF C20 H10 Cl2 N2 O7



PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

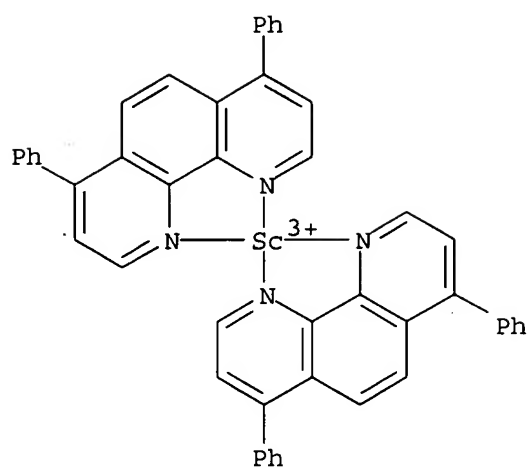
L2 50 ANSWERS REGISTRY COPYRIGHT 2005 ACS on STN

IN Scandium(3+), bis(4,7-diphenyl-1,10-phenanthroline-N1,N10)-, (T-4)-, salt with 3',6'-dihydroxy-2',4',5',7'-tetraiodospiro[isobenzofuran-1(3H),9'-[9H]xanthen]-3-one (1:2) (9CI)

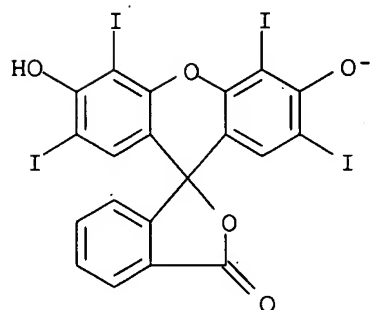
MF C48 H32 N4 Sc . 2 C20 H7 I4 O5

CM 1

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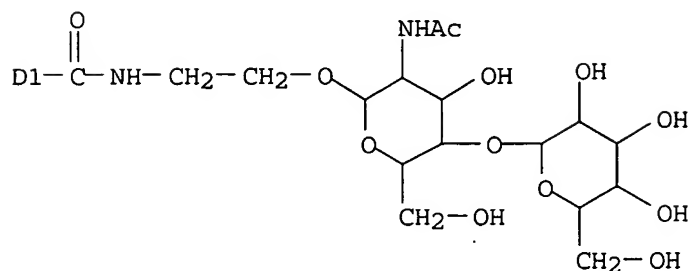
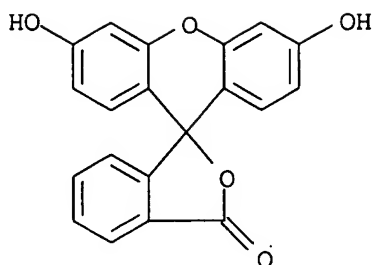


CM 2



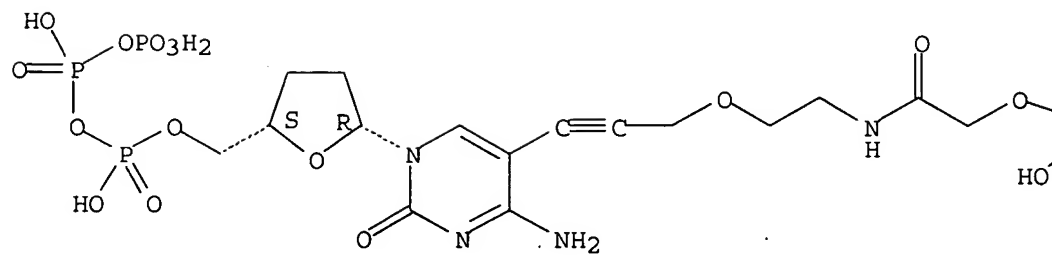
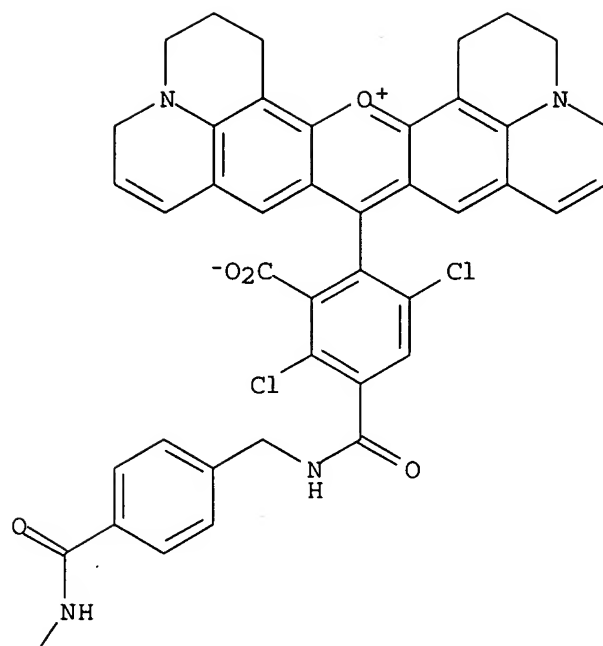
L2 50 ANSWERS REGISTRY COPYRIGHT 2005 ACS on STN
IN Spiro[isobenzofuran-1(3H), 9'-[9H]xanthene]-ar-carboxamide,
N-[2-[[2-(acetylamino)-2-deoxy-4-O-β-D-galactopyranosyl-β-D-
glucopyranosyl]oxy]ethyl]-3',6'-dihydroxy-3-oxo- (9CI)
MF C37 H40 N2 O17
CI IDS

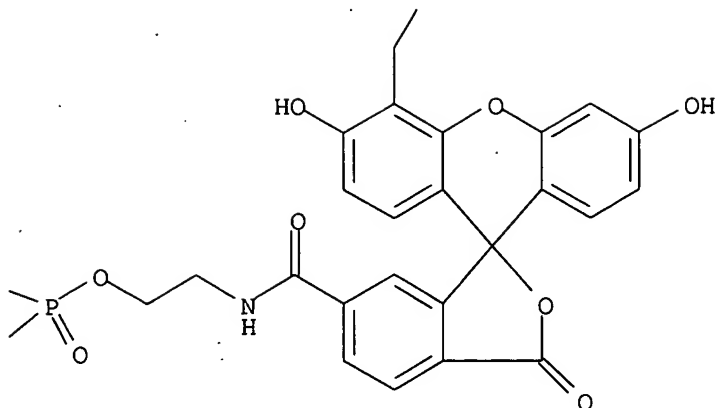
10/665,227



L2 50 ANSWERS REGISTRY COPYRIGHT 2005 ACS on STN
IN 1H,5H,13H,15H-Xantheno[2,3,4-ij:5,6,7-i'j']diquinolizin-18-ium,
9-[4-[[[[4-[[[[6-[16-[4-amino-1,2-dihydro-2-oxo-1-[(2R,5S)-tetrahydro-5-(3,5,7,7-tetrahydroxy-3,5,7-trioxido-2,4,6-trioxa-3,5,7-triphosphahept-1-yl)-2-furanyl]-5-pyrimidinyl]-6-hydroxy-6-oxido-1,9,13-trioxo-5,7-dioxo-2,10-diaza-6-phosphahexadec-15-yn-1-yl]-3',6'-dihydroxy-3-oxospiro[isobenzofuran-1(3H),9'-[9H]xanthen]-4'-yl]methyl]amino]carbonyl]phenyl]methyl]amino]carbonyl]-2-carboxy-3,6-dichlorophenyl]-2,4,16,17-tetrahydro-, inner salt (9CI)
MF C81 H73 Cl2 N9 O29 P4

Absolute stereochemistry.





HOW MANY MORE ANSWERS DO YOU WISH TO SCAN? (1):0

=> s l1 ful
 FULL SEARCH INITIATED 13:36:03 FILE 'REGISTRY'
 FULL SCREEN SEARCH COMPLETED - 135093 TO ITERATE

100.0% PROCESSED 135093 ITERATIONS
 SEARCH TIME: 00.00.01

7814 ANSWERS

L3 7814 SEA SSS FUL L1

=> s l3 and metal
 11528 METAL
 15 METALS
 11528 METAL
 (METAL OR METALS)

L4 0 L3 AND METAL

=> s l3 and transition metal
 142 TRANSITION
 11528 METAL
 15 METALS
 11528 METAL
 (METAL OR METALS)
 1 TRANSITION METAL
 (TRANSITION(W) METAL)

L5 0 L3 AND TRANSITION METAL

=> s l3 and probe
 46135 PROBE
 6 PROBES
 46141 PROBE
 (PROBE OR PROBES)

L6 1 L3 AND PROBE

=> s l3 and label
 14 LABEL

L7 0 L3 AND LABEL

=> s l3 and chelate
 128 CHELATE
 1 CHELATES
 128 CHELATE

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(CHELATE OR CHELATES)

L8 0 L3 AND CHELATE

=> d 16 ibib hitstr abs

'IBIB' IS NOT A VALID FORMAT FOR FILE 'REGISTRY'

'HITSTR' IS NOT A VALID FORMAT FOR FILE 'REGISTRY'

'ABS' IS NOT A VALID FORMAT FOR FILE 'REGISTRY'

The following are valid formats:

Substance information can be displayed by requesting individual fields or predefined formats. The predefined substance formats are: (RN = CAS Registry Number)

REG - RN
SAM - Index Name, MF, and structure - no RN
FIDE - All substance data, except sequence data
IDE - FIDE, but only 50 names
SQIDE - IDE, plus sequence data
SQIDE3 - Same as SQIDE, but 3-letter amino acid codes are used
SQD - Protein sequence data, includes RN
SQD3 - Same as SQD, but 3-letter amino acid codes are used
SQN - Protein sequence name information, includes RN

CALC - Table of calculated properties
EPROP - Table of experimental properties
PROP - EPROP and CALC

Any CA File format may be combined with any substance format to obtain CA references citing the substance. The substance formats must be cited first. The CA File predefined formats are:

ABS -- Abstract
APPS -- Application and Priority Information
BIB -- CA Accession Number, plus Bibliographic Data
CAN -- CA Accession Number
CBIB -- CA Accession Number, plus Bibliographic Data (compressed)
IND -- Index Data
IPC -- International Patent Classification
PATS -- PI, SO
STD -- BIB, IPC, and NCL

IABS -- ABS, indented, with text labels
IBIB -- BIB, indented, with text labels
ISTD -- STD format, indented

OBIB ----- AN, plus Bibliographic Data (original)
OIBIB ----- OBIB, indented with text labels

SBIB ----- BIB, no citations
SIBIB ----- IBIB, no citations

The ALL format gives FIDE BIB ABS IND RE, plus sequence data when it is available.

The MAX format is the same as ALL.

The IALL format is the same as ALL with BIB ABS and IND indented, with text labels.

For additional information, please consult the following help messages:

HELP DFIELDS -- To see a complete list of individual display fields.

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HELP FORMATS -- To see detailed descriptions of the predefined formats.
ENTER DISPLAY FORMAT (IDE):end

=> d his

(FILE 'HOME' ENTERED AT 13:33:17 ON 01 MAR 2005)

FILE 'REGISTRY' ENTERED AT 13:34:33 ON 01 MAR 2005

```
L1          STRUCTURE UPLOADED
L2          50 S L1
L3          7814 S L1 FUL
L4          0 S L3 AND METAL
L5          0 S L3 AND TRANSITION METAL
L6          1 S L3 AND PROBE
L7          0 S L3 AND LABEL
L8          0 S L3 AND CHELATE
```

=> d l6 ibib hitstr abs

'IBIB' IS NOT A VALID FORMAT FOR FILE 'REGISTRY'
'HITSTR' IS NOT A VALID FORMAT FOR FILE 'REGISTRY'
'ABS' IS NOT A VALID FORMAT FOR FILE 'REGISTRY'

The following are valid formats:

Substance information can be displayed by requesting individual fields or predefined formats. The predefined substance formats are: (RN = CAS Registry Number)

```
REG      - RN
SAM      - Index Name, MF, and structure - no RN
FIDE     - All substance data, except sequence data
IDE      - FIDE, but only 50 names
SQIDE    - IDE, plus sequence data
SQIDE3   - Same as SQIDE, but 3-letter amino acid codes are used
SQD      - Protein sequence data, includes RN
SQD3     - Same as SQD, but 3-letter amino acid codes are used
SQN      - Protein sequence name information, includes RN

CALC     - Table of calculated properties
EPROP    - Table of experimental properties
PROP     - EPROP and CALC
```

Any CA File format may be combined with any substance format to obtain CA references citing the substance. The substance formats must be cited first. The CA File predefined formats are:

```
ABS      -- Abstract
APPS     -- Application and Priority Information
BIB      -- CA Accession Number, plus Bibliographic Data
CAN      -- CA Accession Number
CBIB     -- CA Accession Number, plus Bibliographic Data (compressed)
IND      -- Index Data
IPC      -- International Patent Classification
PATS     -- PI, SO
STD      -- BIB, IPC, and NCL

IABS     -- ABS, indented, with text labels
IBIB     -- BIB, indented, with text labels
ISTD     -- STD format, indented

OBIB     ----- AN, plus Bibliographic Data (original)
OIBIB    ----- OBIB, indented with text labels
```

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SBIB ----- BIB, no citations
SIBIB ----- IBIB, no citations

The ALL format gives FIDE BIB ABS IND RE, plus sequence data when it is available.

The MAX format is the same as ALL.

The IALL format is the same as ALL with BIB ABS and IND indented, with text labels.

For additional information, please consult the following help messages:

HELP DFIELDS -- To see a complete list of individual display fields.
HELP FORMATS -- To see detailed descriptions of the predefined formats.
ENTER DISPLAY FORMAT (IDE):end

=> d hidt

L8 HAS NO ANSWERS

'HIDT ' IS NOT A VALID STRUCTURE FORMAT KEYWORD

Structure Formats

SIA ----- Structure Image, Attributes, and map table if it contains data. (Default)

SIM ----- Structure IMage.

SAT ----- Structure ATtributes and map table if it contains data.

SCT ----- Structure Connection Table and map table if it contains data.

SDA ----- All Structure Data (image, attributes, connection table and map table if it contains data).

NOS ----- NO Structure data.

ENTER STRUCTURE FORMAT (SIA), SCT, SDA, SIM, SAT, NOS:end

=> d hist

(FILE 'HOME' ENTERED AT 13:33:17 ON 01 MAR 2005)

FILE 'REGISTRY' ENTERED AT 13:34:33 ON 01 MAR 2005

L1 STRUCTURE UPLOADED
L2 50 S L1
L3 7814 S L1 FUL
L4 0 S L3 AND METAL
L5 0 S L3 AND TRANSITION METAL
L6 1 S L3 AND PROBE
L7 0 S L3 AND LABEL
L8 0 S L3 AND CHELATE

=> file caplus

COST IN U.S. DOLLARS	SINCE FILE ENTRY	TOTAL SESSION
FULL ESTIMATED COST	192.80	193.22

FILE 'CAPLUS' ENTERED AT 13:40:37 ON 01 MAR 2005

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FILE COVERS 1907 - 1 Mar 2005 VOL 142 ISS 10
FILE LAST UPDATED: 28 Feb 2005 (20050228/ED)

This file contains CAS Registry Numbers for easy and accurate substance identification.

=> s l3

L9 22810 L3

=> s l9 and metal

1553024 METAL

788862 METALS

1884659 METAL

(METAL OR METALS)

L10 1287 L9 AND METAL

=> s l9 and transition metal

873158 TRANSITION

243225 TRANSITIONS

979313 TRANSITION

(TRANSITION OR TRANSITIONS)

1553024 METAL

788862 METALS

1884659 METAL

(METAL OR METALS)

168589 TRANSITION METAL

(TRANSITION(W)METAL)

L11 101 L9 AND TRANSITION METAL

=> s l11 and label

56119 LABEL

18817 LABELS

67059 LABEL

(LABEL OR LABELS)

L12 10 L11 AND LABEL

=> s l11 and probe

204483 PROBE

102924 PROBES

271507 PROBE

(PROBE OR PROBES)

L13 16 L11 AND PROBE

=> s l11 and chelate

42169 CHELATE

26322 CHELATES

55922 CHELATE

(CHELATE OR CHELATES)

L14 9 L11 AND CHELATE

=> dup rem l12 l13 l14

PROCESSING COMPLETED FOR L12

PROCESSING COMPLETED FOR L13

PROCESSING COMPLETED FOR L14

L15 29 DUP REM L12 L13 L14 (6 DUPLICATES REMOVED)

10/665,227

=> d l15 ibib hitstr abs 1-29

L15 ANSWER 1 OF 29 CAPLUS COPYRIGHT 2005 ACS on STN

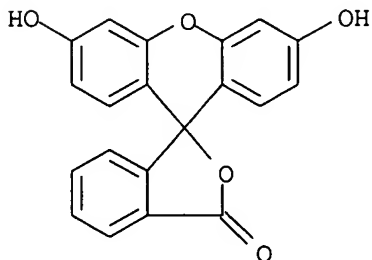
ACCESSION NUMBER: 2005:98641 CAPLUS
TITLE: Protein and peptide sensors using electrical detection methods
INVENTOR(S): Sawyer, Jaymie Robin; Li, Changming; Choong, Vi-en; Maracas, George; Zhang, Peiming
PATENT ASSIGNEE(S): USA
SOURCE: U.S. Pat. Appl. Publ., 22 pp., Cont.-in-part of U.S. Ser. No. 506,178.
CODEN: USXXCO
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 2
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 2005023155	A1	20050203	US 2003-203874	20030609
US 6824669	B1	20041130	US 2000-506178	20000217
WO 2001061053	A2	20010823	WO 2001-US5476	20010220
WO 2001061053	A3	20020314		
WO 2001061053	C2	20021017		

W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CR, CU, CZ, DE, DK, DM, DZ, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM
RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG

PRIORITY APPLN. INFO.: US 2000-506178 A2 20000217
WO 2001-US5476 W 20010220

IT 2321-07-5D, Fluorescein, conjugates with antibody
RL: ARG (Analytical reagent use); ANST (Analytical study); USES (Uses) (protein and peptide sensors using elec. detection methods)
RN 2321-07-5 CAPLUS
CN Spiro[isobenzofuran-1(3H),9'-[9H]xanthen]-3-one, 3',6'-dihydroxy- (9CI) (CA INDEX NAME)



AB The present invention provides an apparatus and methods for the elec. detection of mol. interactions between a **probe** mol. and a protein or peptide target mol., but without requiring the use of electrochem. or other reporters to obtain measurable signals. The methods can be used for elec. detection of mol. interactions between **probe** mols. bound to defined regions of an array and protein or peptide target mols. which are permitted to interact with the **probe** mols. Streptavidin-modified porous hydrogel microelectrodes were prepared

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Biotinylated antibodies to Escherichia coli were attached to the streptavidin-modified microelectrodes to make an immunosensor.

L15 ANSWER 2 OF 29 CAPLUS COPYRIGHT 2005 ACS on STN DUPLICATE 1

ACCESSION NUMBER: 2004:414498 CAPLUS

DOCUMENT NUMBER: 140:401332

TITLE: Detection of nucleic acid sequences by hybridization and cleavage of hybrids to release sequences labeled with electrophoretic mobility tags

INVENTOR(S): Chenna, Ahmed; Singh, Sharat

PATENT ASSIGNEE(S): Aclara Biosciences, Inc., USA

SOURCE: U.S. Pat. Appl. Publ., 124 pp., Cont.-in-part of U.S. Ser. No. 698,846.

CODEN: USXXCO

DOCUMENT TYPE: Patent

LANGUAGE: English

FAMILY ACC. NUM. COUNT: 29

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 2004096825	A1	20040520	US 2001-11201	20011109
US 6322980	B1	20011127	US 1999-303029	19990430
US 6682887	B1	20040127	US 2000-561579	20000428
US 6514700	B1	20030204	US 2000-602586	20000621
US 6627400	B1	20030930	US 2000-698846	20001027
WO 2003042658	A2	20030522	WO 2002-US35893	20021108
WO 2003042658	A3	20031204		

W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, OM, PH, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW

RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG

PRIORITY APPLN. INFO.:
US 1999-303029 A2 19990430
US 2000-561579 A2 20000428
US 2000-602586 A2 20000621
US 2000-684386 B2 20001004
US 2000-698846 A2 20001027
US 2001-11201 A2 20011109
US 2001-337982P P 20011109

IT 150347-54-9

RL: ARU (Analytical role, unclassified); RCT (Reactant); ANST (Analytical study); RACT (Reactant or reagent)

(as electrophoretic mobility tag **label**; detection of nucleic acid sequences by hybridization and cleavage of hybrids to release sequences labeled with electrophoretic mobility tags)

RN 150347-54-9 CAPLUS

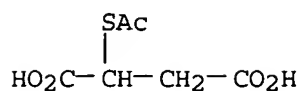
CN Butanoic acid, (acetylthio)-4-[(3',6'-dihydroxy-3-oxospiro[isobenzofuran-1(3H),9'-[9H]xanthen]-5-yl)amino]-4-oxo- (9CI) (CA INDEX NAME)

CM 1

CRN 6332-90-7

CMF C6 H8 O5 S

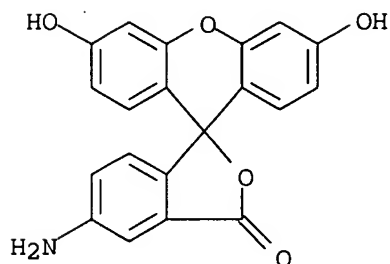
10/665,227



CM 2

CRN 3326-34-9

CMF C20 H13 N O5



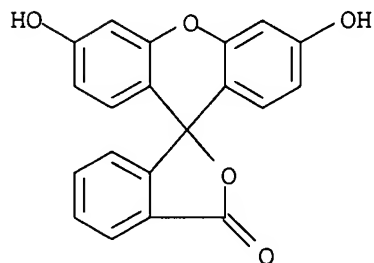
IT 2321-07-5DP, Fluorescein, phosphoramidites 3301-79-9DP, 6-Carboxyfluorescein, phosphoramidites

RL: ARG (Analytical reagent use); SPN (Synthetic preparation); ANST (Analytical study); PREP (Preparation); USES (Uses)

(preparation and anal. use of; detection of nucleic acid sequences by hybridization and cleavage of hybrids to release sequences labeled with electrophoretic mobility tags)

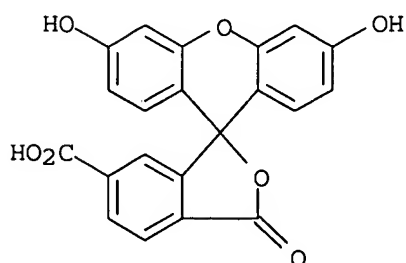
RN 2321-07-5 CAPLUS

CN Spiro[isobenzofuran-1(3H),9'-[9H]xanthen]-3-one, 3',6'-dihydroxy- (9CI) (CA INDEX NAME)



RN 3301-79-9 CAPLUS

CN Spiro[isobenzofuran-1(3H),9'-[9H]xanthen]-6-carboxylic acid, 3',6'-dihydroxy-3-oxo- (9CI) (CA INDEX NAME)



10/665,227

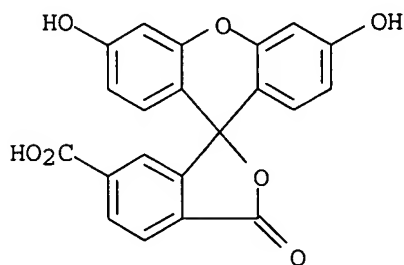
IT 3301-79-9, 6-Carboxyfluorescein 72088-94-9,
5(6)-Carboxyfluorescein

RL: RCT (Reactant); RACT (Reactant or reagent)

(reactions of; detection of nucleic acid sequences by hybridization and
cleavage of hybrids to release sequences labeled with electrophoretic
mobility tags)

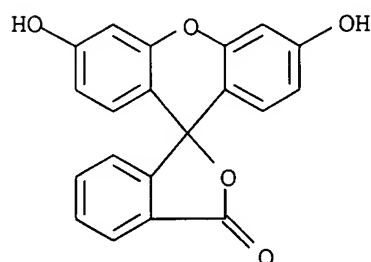
RN 3301-79-9 CAPLUS

CN Spiro[isobenzofuran-1(3H),9'-[9H]xanthene]-6-carboxylic acid,
3',6'-dihydroxy-3-oxo- (9CI) (CA INDEX NAME)



RN 72088-94-9 CAPLUS

CN Spiro[isobenzofuran-1(3H),9'-[9H]xanthene]-ar-carboxylic acid,
3',6'-dihydroxy-3-oxo- (9CI) (CA INDEX NAME)



D1-CO₂H

AB A method of simultaneously detecting a number of different sequences within a sample using pairs of probes that form a duplex structure when hybridized to the target sequence in the correct orientation is described. One member of the pair of probes is labeled with a tag that has a specific electrophoretic mobility. Cleavage of the duplex structures, e.g., with a restriction enzyme, releases electrophoretic tags that are then separated and identified to indicate the presence or quantity of the target sequences. The present invention is particularly useful in multiplex reactions wherein multiple target sequences are detected in one reaction. Kits useful in the detection of nucleic acids are also provided.

L15 ANSWER 3 OF 29 CAPLUS COPYRIGHT 2005 ACS on STN

ACCESSION NUMBER: 2004:570119 CAPLUS

DOCUMENT NUMBER: 141:122623

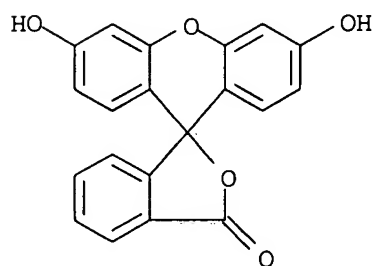
TITLE: Analyte-detecting article such as food packaging
labels and method

INVENTOR(S): Hartman, William G.; Patel-Lahanis, Nina; Li, Kai;
Holguin, Daniel L.; Sandt, Richard L.; Herrmann,
Charles K.

10/665,227

PATENT ASSIGNEE(S): Avery Dennison Corporation, USA
SOURCE: PCT Int. Appl., 45 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2004059281	A2	20040715	WO 2003-US39949	20031216
WO 2004059281	A3	20041104		
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, UZ, VC, VN, YU, ZA, ZM, ZW				
RW: BW, GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG				
US 2004142495	A1	20040722	US 2003-737023	20031216
PRIORITY APPLN. INFO.:			US 2002-433737P	P 20021216
IT 2321-07-5D, Fluorescein, transition metal complexes				
RL: ARG (Analytical reagent use); DEV (Device component use); ANST (Analytical study); USES (Uses)				
(food packaging labels with anal. functions)				
RN 2321-07-5 CAPLUS				
CN Spiro[isobenzofuran-1(3H),9'-[9H]xanthen]-3-one, 3',6'-dihydroxy- (9CI)				
(CA INDEX NAME)				



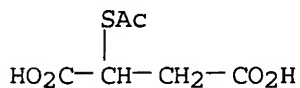
AB An article generally including a facestock film having first and second surfaces, an adhesive layer adjacent to the facestock film, and a detecting system adjacent to the facestock film is used to indicate a change in the status of a packaged material such as food. A measurable analyte can be in vapor and(or) liquid form, and the detecting system, such as an immunoassay device, indicates whether the analyte is present. The detecting system responds to contact with the analyte by indicating that such contact has occurred, or that the analyte is present.

L15 ANSWER 4 OF 29 CAPLUS COPYRIGHT 2005 ACS on STN DUPLICATE 2
ACCESSION NUMBER: 2003:397081 CAPLUS
DOCUMENT NUMBER: 138:397219
TITLE: Detection of nucleic acid sequences by hybridization and cleavage of hybrids to release sequences labeled with affinity and electrophoretic mobility tags
INVENTOR(S): Chenna, Ahmed; Singh, Sharat
PATENT ASSIGNEE(S): Aclara Biosciences, Inc., USA

10/665,227

SOURCE: PCT Int. Appl., 200 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 29
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2003042658	A2	20030522	WO 2002-US35893	20021108
WO 2003042658	A3	20031204		
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, OM, PH, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW				
RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG				
US 2004096825	A1	20040520	US 2001-11201	20011109
PRIORITY APPLN. INFO.:			US 2001-11201	A2 20011109
			US 2001-337982P	P 20011109
			US 1999-303029	A2 19990430
			US 2000-561579	A2 20000428
			US 2000-602586	A2 20000621
			US 2000-684386	B2 20001004
			US 2000-698846	A2 20001027
OTHER SOURCE(S):		MARPAT 138:397219		
IT	150347-54-9D, conjugates with aminodextran			
RL:	ARG (Analytical reagent use); ANST (Analytical study); USES (Uses) (as electrophoretic tag label ; detection of nucleic acid sequences by hybridization and cleavage of hybrids to release sequences labeled with affinity and electrophoretic mobility tags)			
RN	150347-54-9 CAPLUS			
CN	Butanoic acid, (acetylthio)-4-[(3',6'-dihydroxy-3-oxospiro[isobenzofuran-1(3H),9']-[9H]xanthen]-5-yl)amino]-4-oxo- (9CI) (CA INDEX NAME)			
CM	1			
CRN	6332-90-7			
CMF	C6 H8 O5 S			

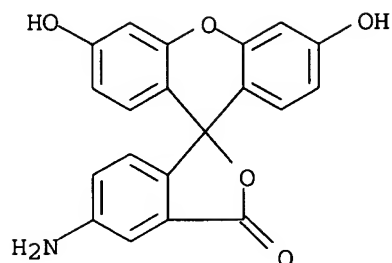


CM 2

CRN 3326-34-9

CMF C20 H13 N O5

10/665,227



IT 372170-49-5P 372170-50-8P 372170-51-9P

RL: ARU (Analytical role, unclassified); SPN (Synthetic preparation); ANST (Analytical study); PREP (Preparation)
(preparation and anal. use; detection of nucleic acid sequences by hybridization and cleavage of hybrids to release sequences labeled with affinity and electrophoretic mobility tags)

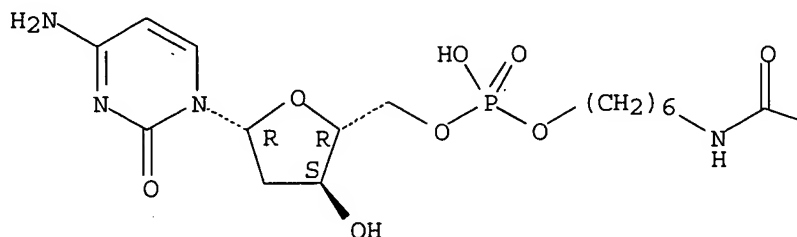
RN 372170-49-5 CAPLUS

CN 5'-Cytidylic acid, 2'-deoxy-, mono[6-[[[3',6'-dihydroxy-3-oxospiro[isobenzofuran-1(3H),9'-[9H]xanthen]-6-yl]carbonyl]amino]hexyl] ester (9CI) (CA INDEX NAME)

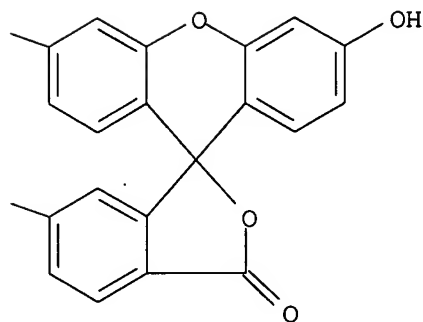
Absolute stereochemistry.

PAGE 1-A

HO



PAGE 1-B



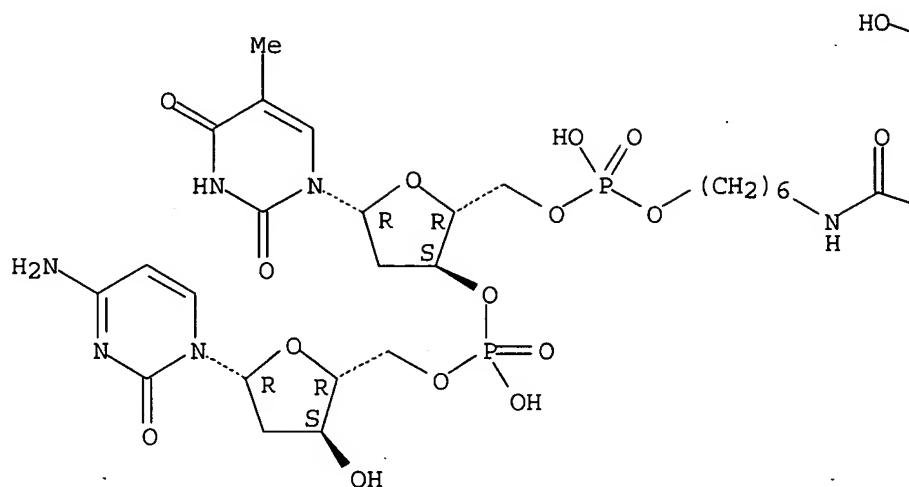
RN 372170-50-8 CAPLUS

CN Cytidine, 5'-O-[[[6-[[[3',6'-dihydroxy-3-oxospiro[isobenzofuran-1(3H),9'-[9H]xanthen]-6-yl]carbonyl]amino]hexyl]oxy]hydroxyphosphinyl]thymidyl- (3'→5')-2'-deoxy- (9CI) (CA INDEX NAME)

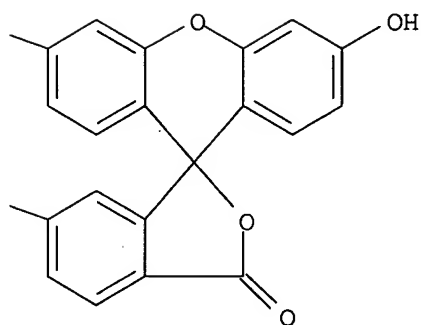
10/665,227

Absolute stereochemistry.

PAGE 1-A



PAGE 1-B

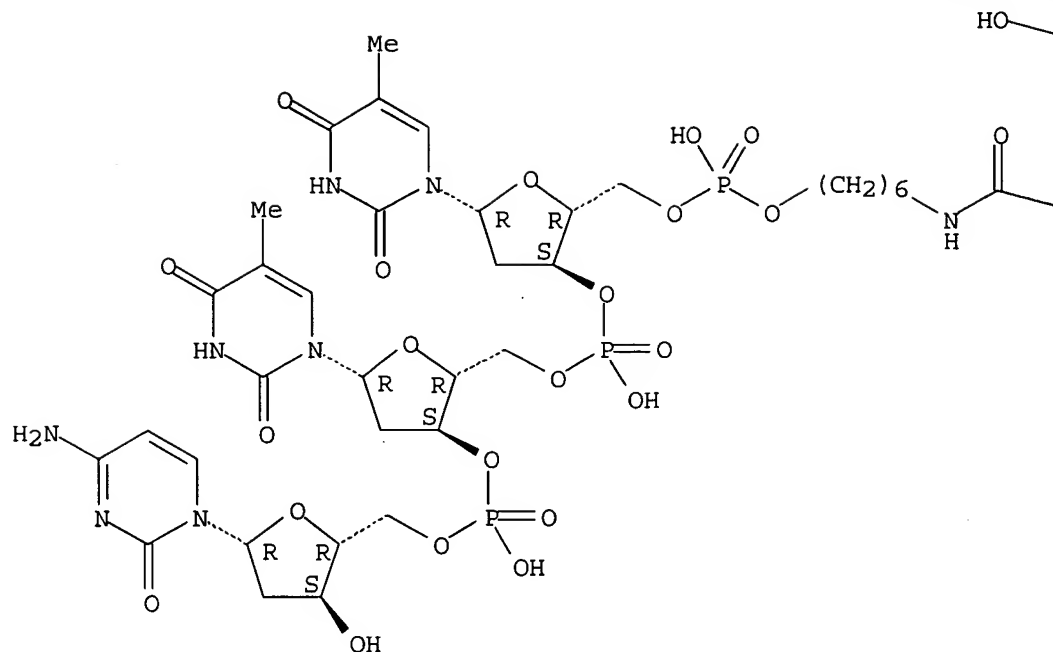


RN 372170-51-9 CAPLUS

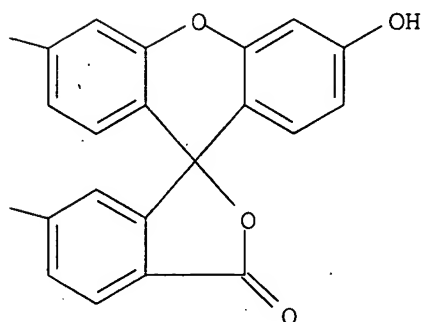
CN Cytidine, 5'-O-[[[6-[[[(3',6'-dihydroxy-3-oxospiro[isobenzofuran-1(3H),9'-[9H]xanthen]-6-yl)carbonyl]amino]hexyl]oxy]hydroxyphosphinyl]thymidyl- (3'→5')-thymidyl- (3'→5')-2'-deoxy- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

PAGE 1-A



PAGE 1-B



IT 530159-55-8P

RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)

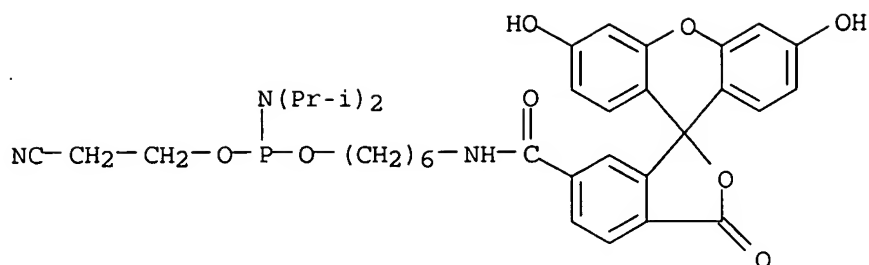
(preparation and reactions of; detection of nucleic acid sequences by hybridization and cleavage of hybrids to release sequences labeled with affinity and electrophoretic mobility tags)

RN 530159-55-8 CAPLUS

CN Phosphoramidous acid, bis(1-methylethyl)-, 2-cyanoethyl

6-[[[(3',6'-dihydroxy-3-oxospiro[isobenzofuran-1(3H),9'-[9H]xanthen]-6-yl)carbonyl]amino]hexyl ester (9CI) (CA INDEX NAME)

10/665,227

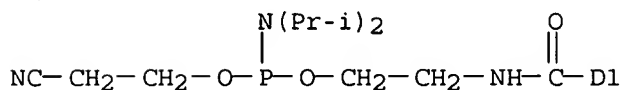
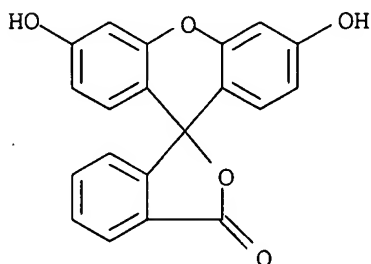


IT 531513-32-3P

RL: SPN (Synthetic preparation); PREP (Preparation)
(preparation and reactions of; detection of nucleic acid sequences by hybridization and cleavage of hybrids to release sequences labeled with affinity and electrophoretic mobility tags)

RN 531513-32-3 CAPLUS

CN Phosphoramidous acid, bis(1-methylethyl)-, 2-cyanoethyl
2-[[[(3',6'-dihydroxy-3-oxospiro[isobenzofuran-1(3H),9'-[9H]xanthen]-5(or
6)-yl)carbonyl]amino]ethyl ester (9CI) (CA INDEX NAME)

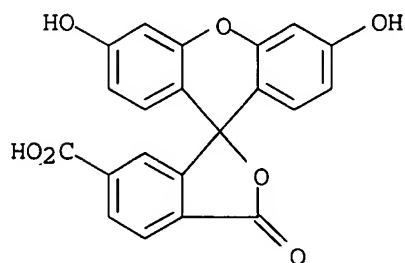


IT 3301-79-9, 6-Carboxyfluorescein 72088-94-9,
5(6)-Carboxyfluorescein

RL: RCT (Reactant); RACT (Reactant or reagent)
(reactions of; detection of nucleic acid sequences by hybridization and cleavage of hybrids to release sequences labeled with affinity and electrophoretic mobility tags)

RN 3301-79-9 CAPLUS

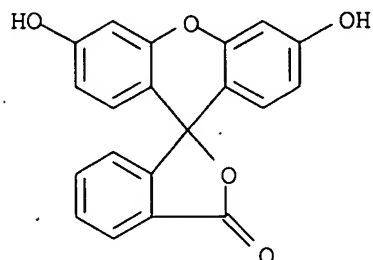
CN Spiro[isobenzofuran-1(3H),9'-[9H]xanthene]-6-carboxylic acid,
3',6'-dihydroxy-3-oxo- (9CI) (CA INDEX NAME)



10/665,227

RN 72088-94-9 CAPLUS

CN Spiro[isobenzofuran-1(3H),9']-[9H]xanthene]-ar-carboxylic acid,
3',6'-dihydroxy-3-oxo- (9CI) (CA INDEX NAME)



D1-CO₂H

AB Probe sets for the simultaneous detection of multiple sequences in a complex nucleic acid sample are described. The method uses pairs of probes that will hybridize to one another to form a cleavable structure when their target sequences are in a defined relationship. Cleavage of the structure releases a sequence that includes a moiety that alters the electrophoretic mobility of the released sequence and a moiety that can be used as an affinity **label** for rapid enrichment of cleavage products. In a multiplexed assay, different released e-tag reporters may be separated and detected providing for target identification. The probes comprise interactive functionalities adjacent the cleaved portion positioned in the probes such that the interactive functionality does not form part of the e-tag reporters. Also described are biopolymers and nucleosides containing such interactive functionalities.

L15 ANSWER 5 OF 29 CAPLUS COPYRIGHT 2005 ACS on STN DUPLICATE 3

ACCESSION NUMBER: 2003:173913 CAPLUS

DOCUMENT NUMBER: 138:217799

TITLE: Method and kit for displacement assays that detect
ligate-ligand association events especially nucleic
acid hybridization

INVENTOR(S): Hartwich, Gerhard; Frischmann, Peter; Haker, Ute;
Wieder, Herbert

PATENT ASSIGNEE(S): Friz Biochem GmbH, Germany

SOURCE: PCT Int. Appl., 57 pp.

CODEN: PIXXD2

DOCUMENT TYPE: Patent

LANGUAGE: German

FAMILY ACC. NUM. COUNT: 2

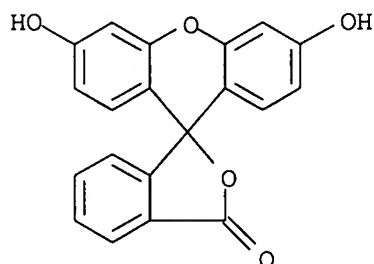
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2003019194	A2	20030306	WO 2002-DE1269	20020406
WO 2003019194	A3	20040129		
W: AU, BR, CA, CN, IL, JP, RU, US, ZA				
RW: AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR				
DE 10141691	A1	20030313	DE 2001-10141691	20010825
WO 2003018834	A2	20030306	WO 2002-DE3122	20020826
WO 2003018834	A3	20030912		
W: AU, BR, CA, CN, IL, JP, RU, US, ZA				
RW: AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, IE, IT,				

10/665,227

LU, MC, NL, PT, SE, SK, TR
DE 10307402 A1 20040909 DE 2003-10307402 20030220
PRIORITY APPLN. INFO.: DE 2001-10141691 A 20010825
WO 2002-DE1269 W 20020406

IT 2321-07-5, Fluorescein
RL: ARG (Analytical reagent use); ANST (Analytical study); USES (Uses)
(label; method and kit for displacement assays that detect
ligate-ligand association events especially nucleic acid hybridization)
RN 2321-07-5 CAPLUS
CN Spiro[isobenzofuran-1(3H),9'-[9H]xanthen]-3-one, 3',6'-dihydroxy- (9CI)
(CA INDEX NAME)

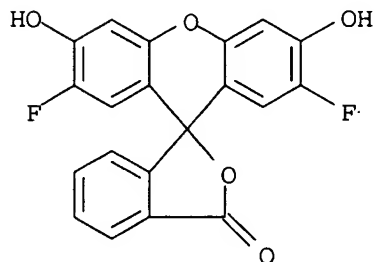


AB The invention relates to a method for detecting ligate-ligand association events, comprising the following steps: provision of a modified surface, whereby the modification consists in the binding of at least one kind of ligate; provision of signal-ligands; provision of a sample containing ligands; bringing a defined amount of signal-ligands into contact with the modified surface and bringing the sample into contact with the modified surface; detecting the signal-ligands, in addition to comparing the values obtained from the detection of the signal-ligands to the reference values. Thus oligonucleotide ligates were bound to surface-treated gold electrodes; signal nucleotide ligands were complementary to ligate oligonucleotides; they were smaller than the ligate nucleotides and were redox-labeled with ferrocene-carboxylic acid. After reaction of ligate and signal ligand reference chronocoulometric data were measured. Signal ligands were either washed away or the ligate-ligand associate was directly reacted with the sample ligand; the hybridization was quantified by applying again the signal ligands and measuring the current that corresponded to the signal ligands that occupied the non-hybridized ligate sites. Alternatively labeled single stranded DNA binding proteins are used as signal ligands. An other alternative includes the fluorometric detection of the association; in an example ligates were bound to glass fibers and fluorescent labeled signal ligands were used. The displacement assays are used in conjunction with low d. DNA and protein chips, e.g. for Point of Care systems.

L15 ANSWER 6 OF 29 CAPLUS COPYRIGHT 2005 ACS on STN
ACCESSION NUMBER: 2003:221926 CAPLUS
DOCUMENT NUMBER: 138:251070
TITLE: Device with chemical surface patterns
INVENTOR(S): Textor, Marcus; Michel, Roger; Voeroes, Janos;
Hubbell, Jeffrey A.; Lussi, Jost
PATENT ASSIGNEE(S): Eidgenoessische Technische Hochschule Zuerich, Switz.
SOURCE: PCT Int. Appl., 69 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
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 WO 2003023401 A1 20030320 WO 2001-CH548 20010912
 W: AE, AG, AL, AM, AT, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH,
 CN, CO, CR, CU, CZ, CZ, DE, DE, DK, DK, DM, DZ, EC, EE, EE, ES,
 FI, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG,
 KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW,
 MX, MZ, NO, NZ, PH, PL, PT, RO, RU, SD, SE, SG, SI, SK, SK, SL,
 TJ, TM, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZW, AM, AZ, BY,
 KG, KZ, MD, RU
 RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY,
 DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF,
 BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG
 EP 1425583 A1 20040609 EP 2001-960055 20010912
 R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT,
 IE, SI, LT, LV, FI, RO, MK, CY, AL, TR
 US 2005014151 A1 20050120 US 2004-489688 20040907
 PRIORITY APPLN. INFO.: WO 2001-CH548 W 20010912
 IT 195136-58-4D, conjugates with albumin
 RL: BSU (Biological study, unclassified); PEP (Physical, engineering or
 chemical process); PYP (Physical process); BIOL (Biological study); PROC
 (Process)
 (selective adsorption on patterned silicon wafer; device with chemical
 surface patterns with biochems. on substrates with prefabricated
 patterns)
 RN 195136-58-4 CAPLUS
 CN Spiro[isobenzofuran-1(3H), 9'-[9H]xanthen]-3-one, 2',7'-difluoro-3',6'-
 dihydroxy- (9CI) (CA INDEX NAME)



AB The invention concerns a device with chemical surface patterns (defined surface areas of at least two different chemical compns.) with biochem. or biol. relevance on substrates with prefabricated patterns of at least two different types of regions (α , β , ...), whereas at least two different, consecutively applied mol. self-assembly systems (A, B...) are used in a way that at least one of the applied assembly systems (A or B or...) is specific to one type of the prefabricated patterns (α or β or...). A silicon wafer was coated with TiO₂ followed by SiO₂ and a pattern of 5 X 5 squares of TiO₂ was etched through the SiO₂ layer. The patterned surface was dipped in aqueous ammonium dodecyl phosphate for self-assembly of DDP on top of the TiO₂ areas, rendering these areas highly hydrophobic. The surface was dipped in an aqueous solution of poly(L-lysine)-g-poly(ethylene glycol) (PLL-g-PEG) to selectively adsorbed to the SiO₂ regions. Texas Red-streptavidin selectively adsorbed to the PLL-g-PEG coating.

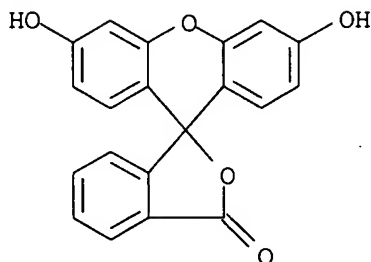
REFERENCE COUNT: 10 THERE ARE 10 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L15 ANSWER 7 OF 29 CAPLUS COPYRIGHT 2005 ACS on STN
 ACCESSION NUMBER: 2003:793411 CAPLUS
 DOCUMENT NUMBER: 139:287272
 TITLE: Electrochemical detection of nucleic acid

10/665,227

hybridization using **probe** arrays immobilized
on electrodes
INVENTOR(S): Hartwich, Gerhard
PATENT ASSIGNEE(S): Friz Biochem GmbH, Germany
SOURCE: Ger. Offen., 8 pp.
CODEN: GWXXBX
DOCUMENT TYPE: Patent
LANGUAGE: German
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
DE 10212958	A1	20031009	DE 2002-10212958	20020322
PRIORITY APPLN. INFO.:			DE 2002-10212958	20020322
IT 2321-07-5D, Fluorescein, probe conjugates				
RL: ARG (Analytical reagent use); ANST (Analytical study); USES (Uses) (electrochem. detection of nucleic acid hybridization using probe arrays immobilized on electrodes)				
RN 2321-07-5 CAPLUS				
CN Spiro[isobenzofuran-1(3H),9'-[9H]xanthen]-3-one, 3',6'-dihydroxy- (9CI) (CA INDEX NAME)				



AB A procedure for the electrochem. detection of nucleic acid hybridization using microarrays immobilized on electrode surfaces is described. An electrode, such as a gold-coated mica, is used as the surface on which a microarray is immobilized. The array is then hybridized with an excess of sample nucleic acids and hybridization is detected by measuring changes in redox potential using an indicator such as a redox dye or a **transition metal salt**.

REFERENCE COUNT: 2 THERE ARE 2 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

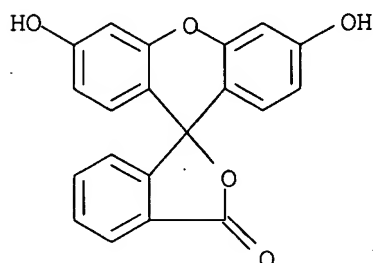
L15 ANSWER 8 OF 29 CAPLUS COPYRIGHT 2005 ACS on STN
ACCESSION NUMBER: 2003:798404 CAPLUS
DOCUMENT NUMBER: 139:311933
TITLE: Organically modified metal particles for the treatment of human hair
INVENTOR(S): Vic, Gabin; Livoreil, Aude; Giroud, Franck
PATENT ASSIGNEE(S): L'oreal, Fr.
SOURCE: Fr. Demande, 29 pp.
CODEN: FRXXBL
DOCUMENT TYPE: Patent
LANGUAGE: French
FAMILY ACC. NUM. COUNT: 2
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
FR 2838052	A1	20031010	FR 2002-4354	20020408

10/665,227

US 2004010864 A1 20040122 US 2003-393924 20030324
BR 2003001010 A 20040817 BR 2003-1010 20030404
EP 1352634 A1 20031015 EP 2003-290859 20030407
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT,
IE, SI, LT, LV, FI, RO, MK, CY, AL, TR, BG, CZ, EE, HU, SK
JP 2003300844 A2 20031021 JP 2003-104224 20030408
PRIORITY APPLN. INFO.: FR 2002-4354 A 20020408
US 2002-396581P P 20020718

IT 2321-07-5, Fluorescein
RL: COS (Cosmetic use); BIOL (Biological study); USES (Uses)
(organically modified metal particles for treatment of human hair)
RN 2321-07-5 CAPLUS
CN Spiro[isobenzofuran-1(3H),9'-[9H]xanthen]-3-one, 3',6'-dihydroxy- (9CI)
(CA INDEX NAME)



AB The invention relates to the use of a suspension of organically modified metallic nanoparticles carrying on their surface a monolayer obtained from organosulfur compds. for the coloring and/or the treatment of human hair. Nanoparticles of gold modified by mercaptosuccinic acid were obtained by the treatment of HAuCl₄.3H₂O with mercaptosuccinic acid in the presence of NaBH₄ in aqueous MeOH solution. These nanoparticles were adsorbed on white hair fibers.

REFERENCE COUNT: 4 THERE ARE 4 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L15 ANSWER 9 OF 29 CAPLUS COPYRIGHT 2005 ACS on STN

ACCESSION NUMBER: 2003:844016 CAPLUS

DOCUMENT NUMBER: 141:19877

TITLE: **Transition-metal-based**
Chemosensing Ensembles: ATP Sensing in Physiological Conditions

AUTHOR(S): Marcotte, Nathalie; Taglietti, Angelo

CORPORATE SOURCE: Dipartimento di Chimica Generale, Universita di Pavia, Pavia, 27100, Italy

SOURCE: Supramolecular Chemistry (2003), 15(7-8), 617-625
CODEN: SCHEER; ISSN: 1061-0278

PUBLISHER: Taylor & Francis Ltd.

DOCUMENT TYPE: Journal

LANGUAGE: English

IT 2321-07-5, Fluorescein 3301-79-9, 6-FAM

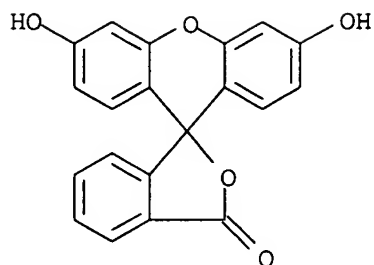
RL: ARG (Analytical reagent use); ANST (Analytical study); USES (Uses)

(**transition-metal-based** chemosensing ensembles
containing fluorescent indicator bound to dicopper polyazamacrocyclic
receptor for ATP determination in physiol. conditions)

RN 2321-07-5 CAPLUS

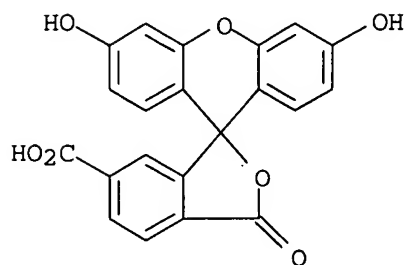
CN Spiro[isobenzofuran-1(3H),9'-[9H]xanthen]-3-one, 3',6'-dihydroxy- (9CI)
(CA INDEX NAME)

10/665,227



RN 3301-79-9 CAPLUS

CN Spiro[isobenzofuran-1(3H), 9'-[9H]xanthene]-6-carboxylic acid,
3',6'-dihydroxy-3-oxo- (9CI) (CA INDEX NAME)



AB Sensing of biol. relevant anionic substrates in physiol. conditions, employing the strategy of the chemosensing ensembles, is reported. Coordination of a fluorescent indicator to a dicopper(II) polyazamacrocyclic receptor ([Cu₂(L)]) results in the collapse of its fluorescence emission. Competitive binding of substrates for the receptor releases the indicator in solution, with full emission recovery. The spectral changes obtained for some indicators and substrates were analyzed to determine their resp. association consts. for the receptor. Discrimination

of micromolar ATP quantities from other interferents (small inorg. anions and well-known neurotransmitters) is improved by a judicious choice of the indicator, the resulting ATP sensor promising interesting biol. applications. Sensing of ATP is achieved with the Chemosensing Ensemble (CE) approach. The photograph shows the emission of the CE mixture in presence of: no substrate, ATP (orange emitting solution) and different neurotransmitters.

REFERENCE COUNT: 45 THERE ARE 45 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L15 ANSWER 10 OF 29 CAPLUS COPYRIGHT 2005 ACS on STN DUPLICATE 4

ACCESSION NUMBER: 2002:51654 CAPLUS

DOCUMENT NUMBER: 136:97269

TITLE: Cation mediated nucleic acid triplex hybridization assay

INVENTOR(S): Daksis, Jasmine I.; Picard, Pierre; Erikson, Glen H.

PATENT ASSIGNEE(S): Ingeneus Corporation, Barbados

SOURCE: PCT Int. Appl., 56 pp.

CODEN: PIXXD2

DOCUMENT TYPE: Patent

LANGUAGE: English

FAMILY ACC. NUM. COUNT: 13

PATENT INFORMATION:

PATENT NO.

KIND DATE

APPLICATION NO.

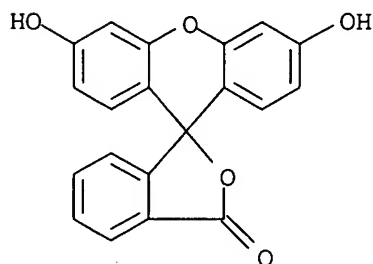
DATE

WO 2002004655	A2	20020117	WO 2001-IB1538	20010709
WO 2002004655	A3	20020627		
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RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG				
US 6420115	B1	20020716	US 2000-613263	20000710
CA 2415493	AA	20020117	CA 2001-2415493	20010709
AU 2001080007	A5	20020121	AU 2001-80007	20010709
EP 1307591	A2	20030507	EP 2001-958285	20010709
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR				
JP 2004511218	T2	20040415	JP 2002-509508	20010709
BR 2001012400	A	20040720	BR 2001-12400	20010709
PRIORITY APPLN. INFO.:			US 2000-613263	A 20000710
			US 1999-468679	A2 19991221
			WO 2001-IB1538	W 20010709

IT 2321-07-5, Fluorescein
 RL: ARG (Analytical reagent use); BUU (Biological use, unclassified); ANST (Analytical study); BIOL (Biological study); USES (Uses)
 (cation mediated nucleic acid triplex hybridization assay)

RN 2321-07-5 CAPLUS

CN Spiro[isobenzofuran-1(3H),9'-[9H]xanthen]-3-one, 3',6'-dihydroxy- (9CI)
 (CA INDEX NAME)



AB Triplex complexes contain a single-stranded probe bound to a double-stranded nucleic acid target, in which the probe includes a heteropolymeric nucleic acid or a heteropolymeric nucleic acid analog. All base triplets of the complex are members selected from the group consisting of A-T-A, T-A-T, U-A-T, T-A-U, A-U-A, U-A-U, G-C-G and C-G-C. A cation-facilitated assay includes detecting the presence of such triplex complexes to determine the degree of complementarity between the probe and target sequence. The assay preferably detects a change in fluorescent intensity of a **label** as a function of binding affinity between the probe and target. The **label** can be covalently tethered to the probe or to the target, or can be an intercalating fluorophore in the reaction medium.

L15 ANSWER 11 OF 29 CAPLUS COPYRIGHT 2005 ACS on STN DUPLICATE 5

ACCESSION NUMBER: 2002:533975 CAPLUS

DOCUMENT NUMBER: 137:104739

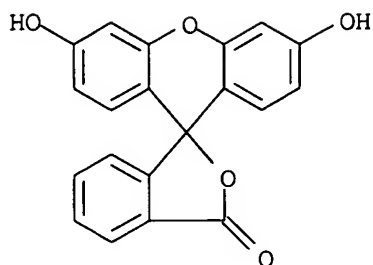
TITLE: Cation mediated triplex hybridization assay for accurate analysis of triplex nucleic acid complexes

INVENTOR(S): Erikson, Glen H.; Daksis, Jasmine I.; Picard, Pierre

10/665,227

PATENT ASSIGNEE(S): Ingeneus Corporation, Barbados
SOURCE: U.S., 21 pp., Cont.-in-part of U. S. Ser. No. 468,679.
CODEN: USXXAM
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 13
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 6420115	B1	20020716	US 2000-613263	20000710
US 6403313	B1	20020611	US 1999-468679	19991221
US 2003113716	A1	20030619	US 2001-885731	20010620
CA 2415493	AA	20020117	CA 2001-2415493	20010709
WO 2002004655	A2	20020117	WO 2001-IB1538	20010709
WO 2002004655	A3	20020627		
W:	AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM			
RW:	GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG			
AU 2001080007	A5	20020121	AU 2001-80007	20010709
EP 1307591	A2	20030507	EP 2001-958285	20010709
R:	AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR			
JP 2004511218	T2	20040415	JP 2002-509508	20010709
BR 2001012400	A	20040720	BR 2001-12400	20010709
US 2002031775	A1	20020314	US 2001-909496	20010720
US 6656692	B2	20031202		
US 2003022853	A1	20030130	US 2001-961865	20010924
US 6858390	B2	20050222		
US 2002127590	A1	20020912	US 2002-80767	20020222
US 2002173480	A1	20021121	US 2002-103002	20020321
US 2003049673	A1	20030313	US 2002-269229	20021011
US 2005014140	A1	20050120	US 2002-293148	20021112
US 2003181412	A1	20030925	US 2003-438151	20030514
PRIORITY APPLN. INFO.:			US 1999-468679	A2 19991221
			US 1998-224505	A2 19981231
			US 2000-613263	A2 20000710
			US 2000-664827	A2 20000919
			US 2001-281547P	P 20010404
			WO 2001-IB1538	W 20010709
			US 2001-909496	A2 20010720
IT	2321-07-5, Fluorescein			
	RL: ARG (Analytical reagent use); BSU (Biological study, unclassified); ANST (Analytical study); BIOL (Biological study); USES (Uses) (as label; cation mediated triplex hybridization assay for accurate anal. of triplex nucleic acid complexes)			
RN	2321-07-5 CAPLUS			
CN	Spiro[isobenzofuran-1(3H), 9'-[9H]xanthen]-3-one, 3',6'-dihydroxy- (9CI) (CA INDEX NAME)			



AB The present invention provides triplex complexes comprising a single-stranded probe bound to a double-stranded nucleic acid target, in which the probe includes a heteropolymeric nucleic acid or a heteropolymeric nucleic acid analog. All base triplets of the complex are members selected from the group consisting of A-T-A, T-A-T, U-A-T, T-A-U, A-U-A, U-A-U, G-C-G and C-G-C. The invention also provides a cation-facilitated assay which includes detecting the presence of such triplex complexes to determine the degree of complementarity between the probe and target sequence. The assay preferably detects a change in fluorescent intensity of a **label** as a function of binding affinity between the probe and target. The **label** can be covalently tethered to the probe or to the target, or can be an intercalating fluorophore in the reaction medium.

REFERENCE COUNT: 61 THERE ARE 61 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L15 ANSWER 12 OF 29 CAPLUS COPYRIGHT 2005 ACS on STN

ACCESSION NUMBER: 2002:925384 CAPLUS

DOCUMENT NUMBER: 138:1970

TITLE: A differential labelling method for sulfur and nitrogen containing entities using platinum complexes
 INVENTOR(S): Talman, Eduard Gerhard; Van Gijlswijk, Robertus Petrus Maria; Heetebrij, Robert Jochem; Veuskens, Jacky Theo Maria

PATENT ASSIGNEE(S): Kreatech Biotechnology B.V., Neth.

SOURCE: Eur. Pat. Appl., 24 pp.

CODEN: EPXXDW

DOCUMENT TYPE: Patent

LANGUAGE: English

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

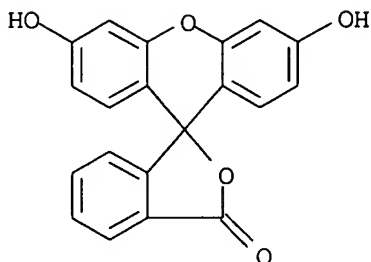
PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
EP 1262778	A1	20021204	EP 2001-202007	20010528
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR				
WO 2002097439	A2	20021205	WO 2002-NL334	20020524
WO 2002097439	A3	20030123		
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, OM, PH, PL, PT, RO, RU, SD, SE, SG, SI, SK, SK, SL, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZM, ZW, AM, AZ, BY, KG				
RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG				
JP 2004530885	T2	20041007	JP 2003-500567	20020524

10/665,227

US 2003060647 A1 20030327 US 2002-156730 20020528
PRIORITY APPLN. INFO.: EP 2001-202007 A 20010528
WO 2002-NL334 W 20020524

OTHER SOURCE(S): MARPAT 138:1970

IT 2321-07-5D, Fluorescein, enzyme labeled
RL: RCT (Reactant); RACT (Reactant or reagent)
(microperoxidase labeling with; differential labeling method for sulfur
and nitrogen containing entities using platinum complexes)
RN 2321-07-5 CAPLUS
CN Spiro[isobenzofuran-1(3H),9'-[9H]xanthen]-3-one, 3',6'-dihydroxy- (9CI)
(CA INDEX NAME)



AB The invention relates to a method for differentially labeling one or more entities, together comprising distinct sulfur and nitrogen containing reactive sites. The invention further relates to an entity that has been labeled by a method according to the invention and to a diagnostic kit comprising a labeled entity and to a diagnostic kit to employ a method according to the invention. Bovine serum albumin was differentially labeled with rhodamine cis-Pt compound

REFERENCE COUNT: 13 THERE ARE 13 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L15 ANSWER 13 OF 29 CAPLUS COPYRIGHT 2005 ACS on STN

ACCESSION NUMBER: 2002:125438 CAPLUS

DOCUMENT NUMBER: 136:334262

TITLE: Exploring the Lewis basicity of the metalloligand [Pt2(μ-Se)2(PPh3)4] on metal substrates by electrospray mass spectrometry. Synthesis, characterization and structural studies of new platinum selenido phosphine complexes containing the {Pt2Se2} core

AUTHOR(S): Yeo, Jeremy S. L.; Vittal, Jagadese J.; Henderson, William; Hor, T. S. Andy

CORPORATE SOURCE: Department of Chemistry, National University of Singapore, 117543, Singapore

SOURCE: Journal of the Chemical Society, Dalton Transactions (2002), (3), 328-336

CODEN: JCSDAA; ISSN: 1472-7773

PUBLISHER: Royal Society of Chemistry

DOCUMENT TYPE: Journal

LANGUAGE: English

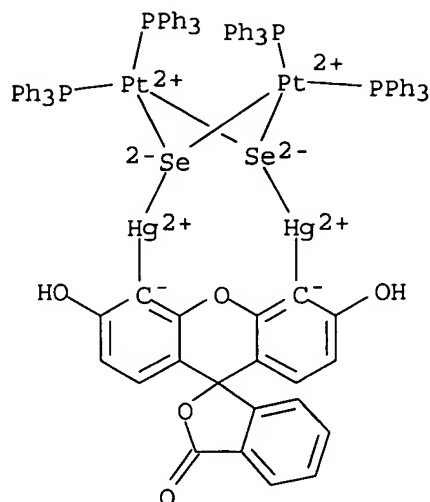
OTHER SOURCE(S): CASREACT 136:334262

IT 415681-07-1P

RL: PRP (Properties); SPN (Synthetic preparation); PREP (Preparation)
(formation in electrospray mass spectrometry study of reactivity of
diplatinum selenido phosphine)

RN 415681-07-1 CAPLUS

CN Platinum(2+), [[μ-(2,7-dihydroxy-3-oxospiro[benzofuran-2(3H),9'-[9H]xanthen]-1,8-diyl)]dimercury]di-μ3-selenoxotetrakis(triphenylphosphine)di- (9CI) (CA INDEX NAME)



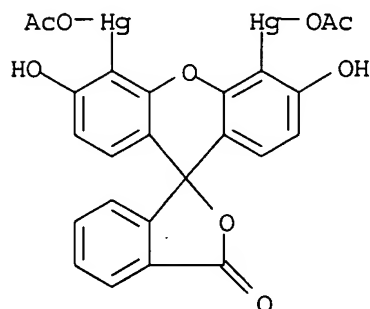
IT 32382-27-7

RL: RCT (Reactant); RACT (Reactant or reagent)

(reaction with diplatinum selenido phosphine studied by electrospray mass spectrometry)

RN 32382-27-7 CAPLUS

CN Mercury, bis(acetato-κO) [μ-(3',6'-dihydroxy-3-oxospiro[isobenzofuran-1(3H),9'-[9H]xanthene]-4',5'-diyl)]di- (9CI) (CA INDEX NAME)



AB Electrospray Mass Spectrometry (ESMS) was used as a tool to **probe** the reactivity of the metalloligand $[\text{Pt}_2(\mu\text{-Se})_2(\text{PPh}_3)_4]$ with metal substrates, which give charged coordination complexes via loss of halides or other labile ligands. Among the numerous metal substrates used in the displacement reactions are $\text{Au}(\text{anpy})\text{Cl}_2$ (anpy = cyclometalated 2-anilinopyridyl), HgPhCl and $\text{Pb}(\text{NO}_3)_2$. Acid titration on the Lewis basic metalloligand leads to the identification and isolation of the doubly-protonated species, $[\text{Pt}_2(\mu\text{-SeH})_2(\text{PPh}_3)_4]^{2+}$, whose sulfide analog cannot be isolated. A three-step strategy is employed in the use of ESMS as a **probe**: (i) preliminary screening of the metalloligand with an array of acidic main group and transition group metal compds., (ii) identification of potentially stable and isolable products formed in situ based on ion distribution and simulated isotope patterns and (iii) promising reactions are repeated on a laboratory scale, and target products are isolated and characterized. X-ray diffraction studies were performed on single crystals of $[\text{Pt}_2(\mu\text{-SeH})_2(\text{PPh}_3)_4][\text{ClO}_4]_2$, $[\text{Pt}_2(\mu_3\text{-Se})_2(\text{PPh}_3)_4(\text{CdCl}_2)]$ and $\{\text{Pt}_2(\mu_3\text{-Se})_2(\text{PPh}_3)_4[\text{Pb}(\text{NO}_3)]\}\{\text{NO}_3\}$. These

results suggested that in general a parallel chemical can be developed on the intermetallic selenides as on the sulfides. However, there are chemical and structural differences which are highlighted.

REFERENCE COUNT: 47 THERE ARE 47 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L15 ANSWER 14 OF 29 CAPLUS COPYRIGHT 2005 ACS on STN

ACCESSION NUMBER: 2001:435043 CAPLUS

DOCUMENT NUMBER: 135:43136

TITLE: Detection of transmembrane potentials by fluorescent resonance energy transfer (FRET) between a hydrophobic fluorescent ion and a chromophore

INVENTOR(S): Tsien, Roger Y.; Gonzalez, Jesus E. III

PATENT ASSIGNEE(S): The Regents of the University of California, USA

SOURCE: PCT Int. Appl., 154 pp.

CODEN: PIXXD2

DOCUMENT TYPE: Patent

LANGUAGE: English.

FAMILY ACC. NUM. COUNT: 2

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2001042211	A2	20010614	WO 2000-US33739	20001212
WO 2001042211	A3	20020117		
W:	AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CR, CU, CZ, DE, DK, DM, DZ, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM			
RW:	GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG			
US 2002137201	A1	20020926	US 1999-378534	19990820
US 6596522	B2	20030722		
CA 2393562	AA	20010614	CA 2000-2393562	20001212
JP 2003518246	T2	20030603	JP 2001-543512	20001212
EP 1409456	A2	20040421	EP 2000-984287	20001212
R:	AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR			
PRIORITY APPLN. INFO.:			US 1999-459956	A 19991213
			US 1997-765860	A1 19970508
			WO 2000-US33739	W 20001212

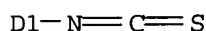
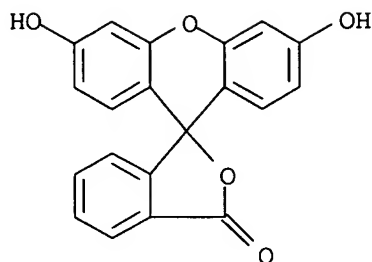
OTHER SOURCE(S): MARPAT 135:43136

IT 27072-45-3D, FITC, antibody conjugate

RL: PEP (Physical, engineering or chemical process); PROC (Process)
(detection of transmembrane potentials by fluorescent resonance energy transfer (FRET) between a hydrophobic fluorescent ion and a chromophore)

RN 27072-45-3 CAPLUS

CN Spiro[isobenzofuran-1(3H),9'-[9H]xanthen]-3-one, 3',6'-dihydroxy-5(or 6)-isothiocyanato- (9CI) (CA INDEX NAME)



AB Methods and compns. are provided for detecting changes in membrane potential in membranes biol. systems. In one aspect, the method comprises: (a) providing a living cell with a first reagent comprising a charged hydrophobic mol. which is typically a fluorescence resonance energy transfer (FRET) acceptor or donor, or is a quencher and is capable of redistributing within the membrane of a biol. membrane in response to changes in the potential across the membrane; (b) providing the cell with a second reagent that can **label** the first face or the second face of a biol. membrane within the cell; (c) detecting light emission from the first reagent or the second reagent. One aspect of this method involves monitoring membrane potential changes in subcellular organelle membranes in a living cell. Another aspect of the invention is the use of certain embodiments of the method for the screening of test chems. for activity to modulate the activity of a target ion channel. Another aspect of the present invention is a transgenic organism comprising a first reagent that comprises a charged hydrophobic fluorescent mol., and a second reagent comprising a bioluminescent or naturally fluorescent protein.

L15 ANSWER 15 OF 29 CAPLUS COPYRIGHT 2005 ACS on STN

ACCESSION NUMBER: 2001:412616 CAPLUS

DOCUMENT NUMBER: 135:58043

TITLE: Detection of protein oxidation in rat-1 fibroblasts by fluorescently labeled tyramine

AUTHOR(S): van der Vlies, Dennis; Wirtz, Karel W. A.; Pap, Eward H. W.

CORPORATE SOURCE: Centre for Biomembranes and Lipid Enzymology
Department of Biochemistry of Lipids Institute of
Biomembranes, Utrecht University, Utrecht, Neth.

SOURCE: Biochemistry (2001), 40(26), 7783-7788

CODEN: BICHAW; ISSN: 0006-2960

PUBLISHER: American Chemical Society

DOCUMENT TYPE: Journal

LANGUAGE: English

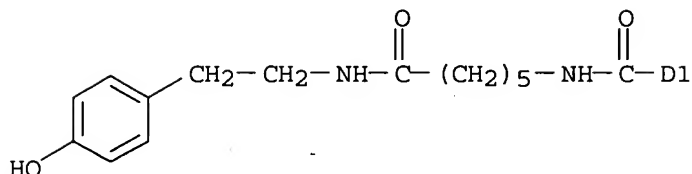
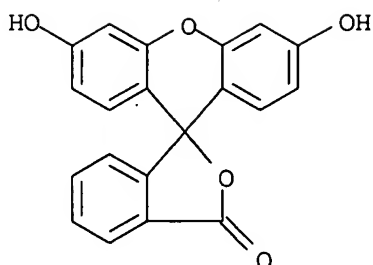
IT 345371-52-0DP, derivs.

RL: ARG (Analytical reagent use); SPN (Synthetic preparation); ANST (Analytical study); PREP (Preparation); USES (Uses)

(protein oxidation determination in rat-1 fibroblasts by fluorescently labeled tyramine)

RN 345371-52-0 CAPLUS

CN Spiro[isobenzofuran-1(3H),9'-[9H]xanthene]-ar-carboxamide,
3',6'-dihydroxy-N-[6-[[2-(4-hydroxyphenyl)ethyl]amino]-6-oxohexyl]-3-oxo-
(9CI) (CA INDEX NAME)



AB Oxidative damage to proteins has been postulated as a major cause of various degenerative diseases including the loss of functional capacity during aging. A prominent target for oxidation by reactive oxygen species (ROS) is the tyrosine residue. Here we present a highly sensitive method for the detection of tyrosyl radical formation in cells. The method is based on the fluorescein-labeled tyrosine analog, tyramine, which upon oxidation may couple to proteins carrying a tyrosyl radical. Coupling of the **probe** (denoted TyrFluo) to standard proteins could be induced by generating ROS with horseradish peroxidase/hydrogen peroxide, SIN-1 or with peroxides (cumene or hydrogen peroxide) in combination with a **transition metal**. TyrFluo added to rat-1 fibroblasts remained outside the cell, whereas the acetylated form (acetylTyrFluo) was membrane-permeable and accumulated in the cell. Exposure of the cells to oxidative stress in the presence of either TyrFluo or acetylTyrFluo gave a cellular labeling characteristic for each **probe**. Western blot anal. confirmed that each **probe** labeled a specific set of proteins. This new method for the detection of ROS-induced oxidation of proteins may mimic the tendency of oxidized proteins to form dityrosine bonds.

REFERENCE COUNT: 34 THERE ARE 34 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L15 ANSWER 16 OF 29 CAPLUS COPYRIGHT 2005 ACS on STN

ACCESSION NUMBER: 2000:383760 CAPLUS

DOCUMENT NUMBER: 133:13385

TITLE: Applications with and methods for producing selected interstrand crosslinks in nucleic acid

PATENT ASSIGNEE(S): Kreatech Biotechnology B.V., Neth.

SOURCE: Eur. Pat. Appl., 21 pp.

CODEN: EPXXDW

DOCUMENT TYPE: Patent

LANGUAGE: English

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
EP 1006199	A1	20000607	EP 1998-204094	19981203
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO				
EP 1006200	A2	20000607	EP 1999-204141	19991203
EP 1006200	A3	20001011		

R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO

CA 2353643	AA	20000608	CA 1999-2353643	19991203
WO 2000032814	A2	20000608	WO 1999-NL740	19991203
WO 2000032814	A3	20001116		

W: AE, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CR, CU, CZ, DE, DK, DM, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM

RW: GH, GM, KE, LS, MW, SD, SL, SZ, TZ, UG, ZW, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG

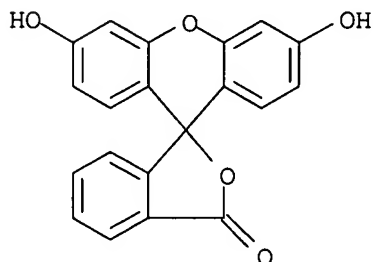
US 2002012915	A1	20020131	US 1999-454404	19991203
US 6406850	B2	20020618		
JP 2002531101	T2	20020924	JP 2000-585445	19991203
NZ 512312	A	20040430	NZ 1999-512312	19991203
AU 778429	B2	20041202	AU 2000-16966	19991203
US 2004161743	A1	20040819	US 2001-5371	20011205

PRIORITY APPLN. INFO.: EP 1998-204094 A 19981203
US 1999-454404 A1 19991203
WO 1999-NL740 W 19991203

IT 2321-07-5, Fluorescein
RL: BUU (Biological use, unclassified); RCT (Reactant); BIOL (Biological study); RACT (Reactant or reagent); USES (Uses)
(applications with and methods for producing selected interstrand crosslinks in nucleic acid)

RN 2321-07-5 CAPLUS

CN Spiro[isobenzofuran-1(3H), 9' - [9H]xanthen]-3-one, 3',6'-dihydroxy- (9CI)
(CA INDEX NAME)



AB The invention provides methods and means for generating interstrand crosslinks in nucleic acid at certain specific locations in said nucleic acid. Said certain specific locations in said nucleic acid can be selected from other locations through hybridizing nucleic acid present in said selected location with complementary nucleic acid. In one aspect the invention provides a method for providing at least one selected sequence in a nucleic acid with interstrand crosslinks comprising hybridizing at least one selected single-strand sequence with a complementary single strand nucleic acid wherein said selected sequence or said complementary nucleic acid or both comprise a crosslinking agent [e.g., trans-dichlorodiammineplatinum(II)]. The selected interstrand crosslinks hamper further hybridization and/or replication/amplification of said selected sequences, and the selected sequence preferably comprises at least one repetitive sequence. The invention provides a special labeling technique of **probes**, called COBRA (COmbined Binary RAtio labeling) to achieved FISH multiplicity of 24 or more. The means and methods of the invention may be used in and beneficial for a wide variety of applications, such as the generation of nucleic acid **probes** and the treatment of diseases such as cancer.

10/665,227

REFERENCE COUNT: 8 THERE ARE 8 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L15 ANSWER 17 OF 29 CAPLUS COPYRIGHT 2005 ACS on STN

ACCESSION NUMBER: 2000:186664 CAPLUS

DOCUMENT NUMBER: 133:55472

TITLE: Determination of the Chelatable Iron Pool of Single Intact Cells by Laser Scanning Microscopy

AUTHOR(S): Petrat, Frank; de Groot, Herbert; Rauen, Ursula

CORPORATE SOURCE: Universitätsklinikum, Institut für Physiologische Chemie, Essen, D-45122, Germany

SOURCE: Archives of Biochemistry and Biophysics (2000), 376(1), 74-81

CODEN: ABBIA4; ISSN: 0003-9861

PUBLISHER: Academic Press

DOCUMENT TYPE: Journal

LANGUAGE: English

IT 234075-34-4, Phen green SK

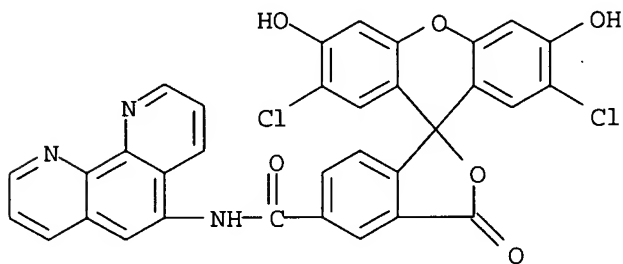
RL: ARG (Analytical reagent use); BSU (Biological study, unclassified);

ANST (Analytical study); BIOL (Biological study); USES (Uses)

(determination of chelatable iron pool of single intact cells by laser scanning microscopy)

RN 234075-34-4 CAPLUS

CN Spiro[isobenzofuran-1(3H),9'-[9H]xanthene]-5-carboxamide, 2',7'-dichloro-3',6'-dihydroxy-3-oxo-N-1,10-phenanthrolin-5-yl-, dipotassium salt (9CI) (CA INDEX NAME)



● 2 K

AB We have previously established a method of detecting intracellular chelatable iron in viable cells based on digital fluorescence microscopy. To quantify cellular chelatable iron, it was crucial to determine the intracellular indicator concentration. In the present study, we therefore adapted

the method to confocal laser scanning microscopy, which should allow the determination of the indicator concentration on the single-cell level. The fluorescent

heavy-metal indicator phen green SK (PG SK), the fluorescence of which is quenched by iron, was loaded into cultured rat hepatocytes. The hepatocellular fluorescence increased when cellular chelatable iron available to PG SK was removed from the probe by an excess of the membrane-permeable transition metal chelator 2,2'-dipyridyl (2,2'-DPD, 5 mM). We optimized the scanning parameters for quant. recording changes in fluorescence and determined individual intracellular PG SK concns. from the unquenched cellular fluorescence (after 2,2'-DPD) compared with PG SK stds. in a "cytosolic" medium. An ex situ calibration method based on laser scanning microscopy was set up to

determine the concentration of cellular chelatable iron from the increase of PG SK

fluorescence after addition of 2,2'-DPD (5 mM). As the stoichiometry of the PG SK:Fe²⁺ complex was 3:1 as long as PG SK was not limiting, cellular chelatable iron was calculated directly from absolute changes in cellular fluorescence. Using this method, we found 2.5±2.2 μM chelatable iron in hepatocytes. This method makes it possible to determine the pool of chelatable iron in single vital cells independently of cellular differences (e.g., dye loading, cell volume) in heterogeneous cell populations. (c) 2000 Academic Press.

REFERENCE COUNT: 37 THERE ARE 37 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L15 ANSWER 18 OF 29 CAPLUS COPYRIGHT 2005 ACS on STN

ACCESSION NUMBER: 2000:141803 CAPLUS

DOCUMENT NUMBER: 132:302546

TITLE: Fiber optic oxygen sensor based on phosphorescence quenching of erythrosin B trapped in silica-gel glasses

AUTHOR(S): Chan, M. A.; Lawless, J. L.; Lam, S. K.; Lo, D.

CORPORATE SOURCE: Potential Star Ltd., Hong Kong, Peop. Rep. China

SOURCE: Analytica Chimica Acta (2000), 408(1-2), 33-37

CODEN: ACACAM; ISSN: 0003-2670

PUBLISHER: Elsevier Science B.V.

DOCUMENT TYPE: Journal

LANGUAGE: English

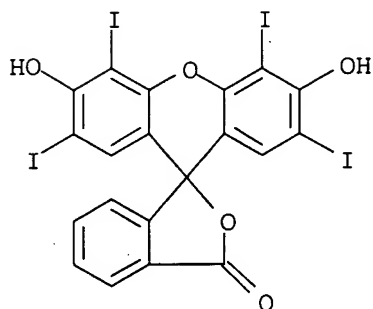
IT 16423-68-0, Erythrosin B

RL: DEV (Device component use); MOA (Modifier or additive use); USES (Uses)

(fiber optic oxygen sensor based on phosphorescence quenching of erythrosin B trapped in silica-gel glasses)

RN 16423-68-0 CAPLUS

CN Spiro[isobenzofuran-1(3H),9']-[9H]xanthen]-3-one, 3',6'-dihydroxy-2',4',5',7'-tetraiodo-, disodium salt (9CI) (CA INDEX NAME)



●2 Na

AB Exptl. results from a phosphorescence-based fiber-optical oxygen sensor are presented. The optical oxygen sensor module has overall dimensions of 6 + 6 + 12 mm³. Erythrosin B immobilized in sol-gel silica, which showed strong phosphorescence quenching by oxygen, was used in the sensor **probe**. Oxygen sensing is effective from 0.014 to 600 mbar. On account of the long phosphorescence lifetime (.apprx.0.28 ms) and high phosphorescence yield (.apprx.2%) of erythrosin B in sol-gel silica at room temperature, the sensitivity of the sensor improves by a factor of 10 as compared to **transition-metal** complex-based

optical fiber oxygen sensors. The phosphorescence quenching effect is highly selective to oxygen. The sensor is inert to commonly found gases such as nitrogen and argon. Time-decay of phosphorescence is also studied.

REFERENCE COUNT: 16 THERE ARE 16 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L15 ANSWER 19 OF 29 CAPLUS COPYRIGHT 2005 ACS on STN

ACCESSION NUMBER: 1999:246333 CAPLUS

DOCUMENT NUMBER: 131:127282

TITLE: Determination of the chelatable iron pool of isolated rat hepatocytes by digital fluorescence microscopy using the fluorescent **probe**, Phen Green SK

AUTHOR(S): Petrát, Frank; Rauen, Ursula; De Groot, Herbert

CORPORATE SOURCE: Institut für Physiologische Chemie, Universitätsklinikum, Essen, D-45122, Germany

SOURCE: Hepatology (Philadelphia) (1999), 29(4), 1171-1179
CODEN: HPTLD9; ISSN: 0270-9139

PUBLISHER: W. B. Saunders Co.

DOCUMENT TYPE: Journal

LANGUAGE: English

IT 234075-41-3, Phen Green FL

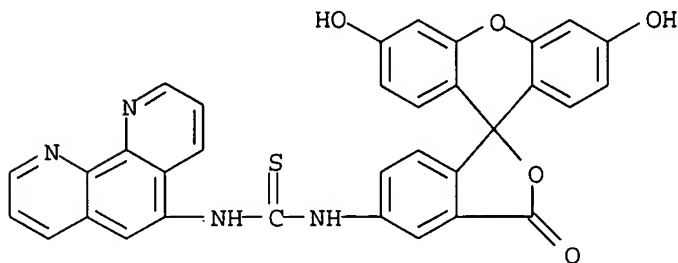
RL: ARG (Analytical reagent use); BSU (Biological study, unclassified);

ANST (Analytical study); BIOL (Biological study); USES (Uses)

(Phen Green FL; determination of chelatable iron pool of isolated rat hepatocytes by digital fluorescence microscopy using fluorescent **probe**, Phen Green SK)

RN 234075-41-3 CAPLUS

CN Thiourea, N-(3',6'-dihydroxy-3-oxospiro[isobenzofuran-1(3H),9'-[9H]xanthen]-5-yl)-N'-1,10-phenanthroline-5-yl-, dipotassium salt (9CI) (CA INDEX NAME)



● 2 K

IT 234075-34-4, Phen Green SK

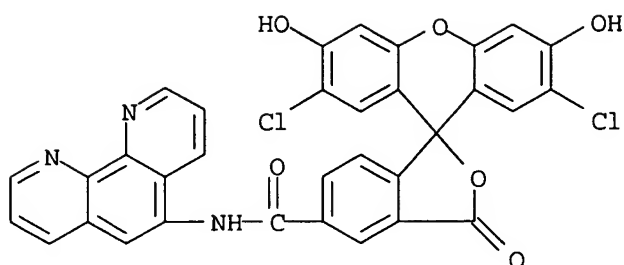
RL: ARG (Analytical reagent use); BSU (Biological study, unclassified);

ANST (Analytical study); BIOL (Biological study); USES (Uses)

(Phen Green SK; determination of chelatable iron pool of isolated rat hepatocytes by digital fluorescence microscopy using fluorescent **probe**, Phen Green SK)

RN 234075-34-4 CAPLUS

CN Spiro[isobenzofuran-1(3H),9'-[9H]xanthen]-5-carboxamide, 2',7'-dichloro-3',6'-dihydroxy-3-oxo-N-1,10-phenanthroline-5-yl-, dipotassium salt (9CI) (CA INDEX NAME)

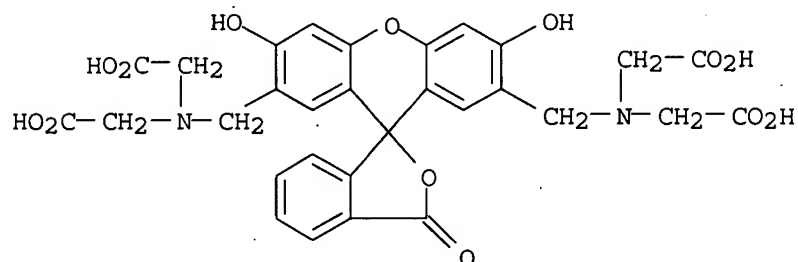


● 2 K

IT 1461-15-0, Calcein 2321-07-5D, Fluorescein, reaction product with desferrioxamine
 RL: ARG (Analytical reagent use); BSU (Biological study, unclassified); ANST (Analytical study); BIOL (Biological study); USES (Uses) (determination of chelatable iron pool of isolated rat hepatocytes by digital fluorescence microscopy using fluorescent **probe**, Phen Green SK)

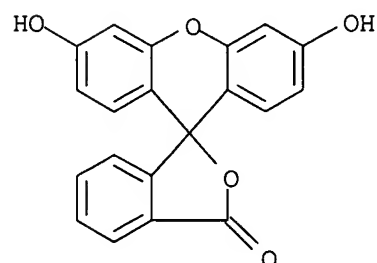
RN 1461-15-0 CAPLUS

CN Glycine, N,N'-[(3',6'-dihydroxy-3-oxospiro[isobenzofuran-1(3H),9'-[9H]xanthene]-2',7'-diyl)bis(methylene)]bis[N-(carboxymethyl)- (9CI) (CA INDEX NAME)



RN 2321-07-5 CAPLUS

CN Spiro[isobenzofuran-1(3H),9'-[9H]xanthene]-3-one, 3',6'-dihydroxy- (9CI) (CA INDEX NAME)



AB The intracellular pool of chelatable iron is considered to be a decisive pathogenetic factor for various kinds of cell injury. We therefore set about establishing a method of detecting chelatable iron in isolated hepatocytes based on digital fluorescence microscopy. The fluorescence of hepatocytes loaded with the fluorescent metal indicators, phen green SK

(PG SK), phen green FL (PG FL), calcein, or fluorescein desferrioxamine (FL-DFO), was quenched when iron was added to the cells in a membrane-permeable form. It increased when cellular chelatable iron available to the **probe** was exptl. decreased by an excess of various membrane-permeable **transition metal** chelators. The quenching by means of the ferrous ammonium sulfate + citrate complex and also the "dequenching" using 2,2'-dipyridyl (2,2'-DPD) were largest for PG. We therefore optimized the conditions for its use in hepatocytes and tested the influence of possible confounding factors. An ex situ calibration method was set up to determine the chelatable iron pool of cultured hepatocytes from the increase of PG SK fluorescence after the addition of excess 2,2'-DPD. Using this method, we found $9.8 \pm 2.9 \mu\text{mol/L}$ (mean \pm SEM; $n = 18$) chelatable iron in rat hepatocytes, which constituted $1.0\% \pm 0.3\%$ of the total iron content of the cells as determined by atomic absorption spectroscopy. The concentration of chelatable iron in hepatocytes

was

higher than the one in K562 cells ($4.0 \pm 1.3 \mu\text{mol/L}$; mean \pm SEM; $n = 8$), which were used for comparison. This method allowed us to record time courses of iron uptake and of iron chelation by different chelators (e.g., deferoxamine, 1,10-phenanthroline) in single, intact cells.

REFERENCE COUNT: 55 THERE ARE 55 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L15 ANSWER 20 OF 29 CAPLUS COPYRIGHT 2005 ACS on STN

ACCESSION NUMBER: 1998:682401 CAPLUS

DOCUMENT NUMBER: 129:313127

TITLE: Trans-platinum compound and coordination with biomolecules including DNA

INVENTOR(S): Houthoff, Hendrik Jan; Reedijk, Jan; Volkers, Herman H.; Heetebrij, Robert Jochem

PATENT ASSIGNEE(S): Kreatech Biotechnology B.V., Neth.

SOURCE: PCT Int. Appl., 22 pp.

CODEN: PIXXD2

DOCUMENT TYPE: Patent

LANGUAGE: English

FAMILY ACC. NUM. COUNT: 2

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 9845304	A1	19981015	WO 1998-NL206	19980409
W:	AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CU, CZ, DE, DK, EE, ES, FI, GB, GE, GH, GM, GW, HU, ID, IL, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, UA, UG, US, UZ, VN, YU, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM			
RW:	GH, GM, KE, LS, MW, SD, SZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, ML, MR, NE, SN, TD, TG			
CA 2286668	AA	19981015	CA 1998-2286668	19980409
AU 9867517	A1	19981030	AU 1998-67517	19980409
AU 737441	B2	20010816		
EP 973785	A1	20000126	EP 1998-912826	19980409
EP 973785	B1	20031203		
R:	AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, NL, SE, PT, IE, FI			
NZ 500184	A	20010831	NZ 1998-500184	19980409
JP 2001521511	T2	20011106	JP 1998-542631	19980409
AT 255587	E	20031215	AT 1998-912826	19980409
PT 973785	T	20040430	PT 1998-912826	19980409
MX 9909189	A	20000630	MX 1999-9189	19991007
US 6248531	B1	20010619	US 1999-402735	19991221
PRIORITY APPLN. INFO.:			EP 1997-201066	A 19970410

10/665,227

WO 1998-NL206

W 19980409

OTHER SOURCE(S): MARPAT 129:313127

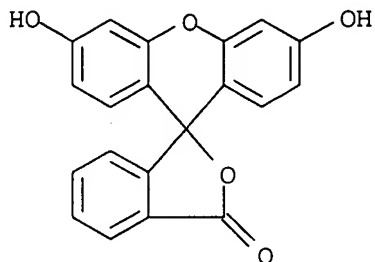
IT 2321-07-5, Fluorescein

RL: ARU (Analytical role, unclassified); RCT (Reactant); ANST (Analytical study); RACT (Reactant or reagent)

(trans-platinum compound and coordination with biomols. including DNA)

RN 2321-07-5 CAPLUS

CN Spiro[isobenzofuran-1(3H),9'-[9H]xanthen]-3-one, 3',6'-dihydroxy- (9CI)
(CA INDEX NAME)



AB The present invention is concerned with a trans-platinum based compound for use in labeling bio-organic mols. The invention describes the synthesis and utilization of several trans-platinum compds. One particular example illustrates the application of the trans-platinum compds. in the labeling of DNA.

REFERENCE COUNT: 10 THERE ARE 10 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L15 ANSWER 21 OF 29 CAPLUS COPYRIGHT 2005 ACS on STN

ACCESSION NUMBER: 1998:675122 CAPLUS

DOCUMENT NUMBER: 129:257360.

TITLE: Dendrimer **transition metal**
chelate complexes for the detection of proteins containing phosphate esters

INVENTOR(S): Tegge, Werner; Gast, Rainer; Glokler, Jorn
PATENT ASSIGNEE(S): Gesellschaft fur Biotechnologische Forschung m.b.H
(G.B.F.), Germany

SOURCE: PCT Int. Appl., 28 pp.

CODEN: PIXXD2

DOCUMENT TYPE: Patent

LANGUAGE: German

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 9843082	A1	19981001	WO 1998-EP1689	19980323
W: JP, US				
RW: AT, BE, CH, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE				
EP 966684	A1	19991229	EP 1998-917057	19980323
EP 966684	B1	20040225		
R: AT, BE, CH, DE, DK, ES, FR, GB, IT, LI, LU, NL, SE, FI				
JP 2001523234	T2	20011120	JP 1998-544427	19980323
AT 260466	E	20040315	AT 1998-917057	19980323
ES 2217546	T3	20041101	ES 1998-917057	19980323
US 6252042	B1	20010626	US 2000-381387	20000118
PRIORITY APPLN. INFO.:			DE 1997-19711796	A 19970321
			WO 1998-EP1689	W 19980323

IT 27072-45-3, Fluoresceinisothiocyanate

RL: RCT (Reactant); RACT (Reactant or reagent)

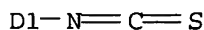
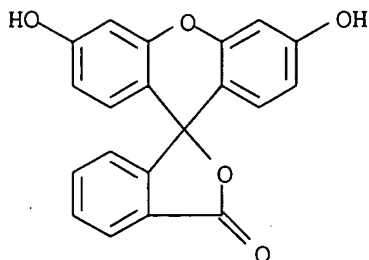
10/665,227

(dendrimer **transition metal chelate**

complexes for detection of proteins containing phosphate esters)

RN 27072-45-3 CAPLUS

CN Spiro[isobenzofuran-1(3H),9'-[9H]xanthen]-3-one, 3',6'-dihydroxy-5(or 6)-isothiocyanato- (9CI) (CA INDEX NAME)



IT 213607-49-9P

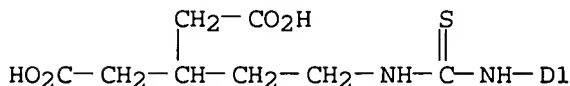
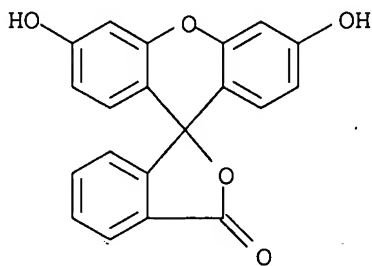
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)

(dendrimer **transition metal chelate**

complexes for detection of proteins containing phosphate esters)

RN 213607-49-9 CAPLUS

CN Pentanedioic acid, 3-[2-[[[3',6'-dihydroxy-3-oxospiro[isobenzofuran-1(3H),9'-[9H]xanthen]-5(or 6)-yl]amino]thioxomethyl]amino]ethyl]- (9CI) (CA INDEX NAME)



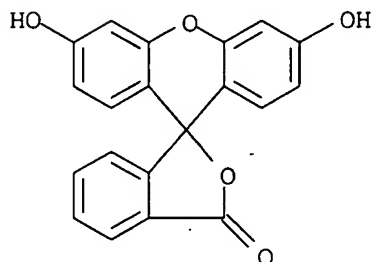
AB The invention concerns dendrimer **transition metal chelate** complexes with attached fluorescent dye that detect peptides and proteins containing various amts. of phosphate esters. The dendrimer chelating agents are, e.g., iminodiacetic acid, nitrilotriacetic acid and derivs.; Fe³⁺ and fluorescein are used in the described synthesis. The compound can be used to identify consensus motives of protein kinases and for detection on protein gels, blots and in capillary electrophoresis.

REFERENCE COUNT: 4 THERE ARE 4 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

10/665,227

ACCESSION NUMBER: 1995:541416 CAPLUS
DOCUMENT NUMBER: 122:283859
TITLE: Fusion proteins containing metallothionein and
targeting-protein structural components
INVENTOR(S): Zamora, Paul; Griffith, Jeffery K.
PATENT ASSIGNEE(S): University of New Mexico, USA
SOURCE: PCT Int. Appl., 39 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

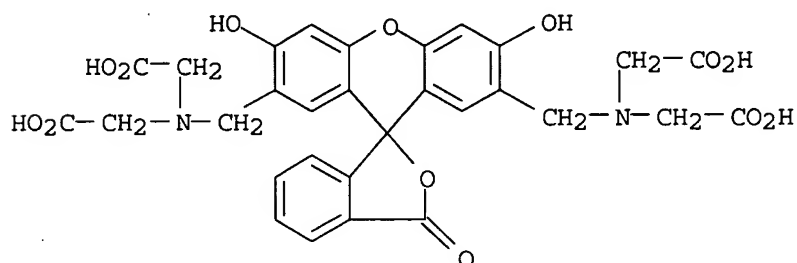
PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 9504753	A1	19950216	WO 1994-US8689	19940804
W: CA, JP				
RW: AT, BE, CH, DE, DK, ES, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE				
PRIORITY APPLN. INFO.:			US 1993-104628	A 19930811
IT 2321-07-5P, Fluorescein				
RL: ARG (Analytical reagent use); BPN (Biosynthetic preparation); THU (Therapeutic use); ANST (Analytical study); BIOL (Biological study); PREP (Preparation); USES (Uses)				
(probe; fusion proteins containing metallothionein and targeting-protein structural components)				
RN 2321-07-5 CAPLUS				
CN Spiro[isobenzofuran-1(3H),9'-[9H]xanthen]-3-one, 3',6'-dihydroxy- (9CI) (CA INDEX NAME)				



AB Components of the primary amino acid sequence of a metallothionein are genetically incorporated into proteins by recombinant DNA techniques to produce a hybrid mol. comprising an effector protein continuous with the metallothionein. The sulfhydryl and lysine residues of the metallothionein portion of the hybrid mol. provide binding sites for ligands such as radionuclides, contrast agents, magnetic resonance agents, fluorochromes, and enzymes. The labeled hybrid mol. is useful for the diagnosis and localization of disease lesions and is a cost-effective method of producing key ingredients for immunoassays including immunosorbent assay, immunoblot, immunoblot, immunohistochem., and/or flow cytometry. An example of such methods is provided by construction of recombinant DNA for hamster metallothionein-2/human tissue plasminogen activator mols., regulated expression of the chimeric gene in Escherichia coli, and its potential use in diagnostic imaging with the **probe** technetium-99m.

L15 ANSWER 23 OF 29 CAPLUS COPYRIGHT 2005 ACS on STN
ACCESSION NUMBER: 1995:685677. CAPLUS
DOCUMENT NUMBER: 123:106978
TITLE: Transport of iron and other **transition**
metals into cells as revealed by a fluorescent

probe
 AUTHOR(S): Breuer, William; Epsztejn, Silvina; Millgram, Phina; Cabantchik, Ioav Z.
 CORPORATE SOURCE: Dep. Biol. Chem., Hebrew Univ. Jerusalem, Jerusalem, 91904, Israel
 SOURCE: American Journal of Physiology (1995), 268(6, Pt. 1), C1354-C1361
 CODEN: AJPHAP; ISSN: 0002-9513
 PUBLISHER: American Physiological Society
 DOCUMENT TYPE: Journal
 LANGUAGE: English
 IT **1461-15-0**, Calcein
 RL: BUU (Biological use, unclassified); BIOL (Biological study); USES (Uses)
 (transport of iron and other **transition metals** into cells as revealed by a fluorescent **probe**)
 RN 1461-15-0 CAPLUS
 CN Glycine, N,N'-[(3',6'-dihydroxy-3-oxospiro[isobenzofuran-1(3H),9'-[9H]xanthene]-2',7'-diyl)bis(methylene)]bis[N-(carboxymethyl)- (9CI) (CA INDEX NAME)



AB Transport of nontransferrin-bound iron into cells is thought to be mediated by a facilitated mechanism involving either the trivalent form Fe(III) or the divalent form Fe(II) following reduction of Fe(III) at the cell surface. The authors have made use of the **probe** calcein, whose fluorescence is rapidly and stoichiometrically quenched by divalent metals such as Fe(II), Cu(II), Co(II), and Ni(II) and is minimally affected by variations in ionic strength, Ca(II) and Mg(II). Addition of Fe(II) salts to calcein-loaded human erythroleukemia K-562 cells elicited a slow quenching response that was markedly accelerated by the ionophore A-23187 and was reversed by membrane-permeant but not by impermeant chelators. These observations were confirmed by fluorescence imaging of cells. Other divalent metals such as Co(II), Ni(II), and Mn(II) permeated into cells at roughly similar rates, and their uptake, like that of Fe(II), was blocked by trifluoperazine, bepridil, and impermeant sulfhydryl-reactive organomercurials, indicating the operation of a common transport mechanism. This method could provide a versatile tool for studying the transport of iron and other **transition metals** into cells.

L15 ANSWER 24 OF 29 CAPLUS COPYRIGHT 2005 ACS on STN

ACCESSION NUMBER: 1995:324994 CAPLUS

DOCUMENT NUMBER: 122:204043

TITLE: Studies on complexation of fluorescein and O-phenanthroline derivatives with the elements of Group II B. The spectrophotometric determination of zinc in its alloys.

AUTHOR(S): Abd-El Hafeez, E. Ali

CORPORATE SOURCE: Fac. Sci. Sohag, Assiut Univ., Egypt

SOURCE: Egyptian Journal of Analytical Chemistry (1993), 2(1),

107-15

CODEN: EJACEH; ISSN: 1110-1857

DOCUMENT TYPE:

Journal

LANGUAGE:

English

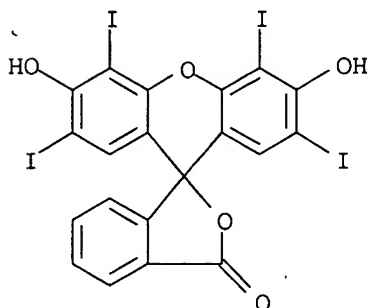
IT 15905-32-5D, Tetraiodofluorescein, **transition****metal** and phenanthroline derivative complexes

RL: ANT (Analyte); PRP (Properties); ANST (Analytical study)

(absorption spectra of ternary complexes of zinc and cadmium and mercury with fluorescein and O-phenanthroline derivs.)

RN 15905-32-5 CAPLUS

CN Spiro[isobenzofuran-1(3H),9']-[9H]xanthen]-3-one, 3',6'-dihydroxy-2',4',5',7'-tetraiodo- (9CI) (CA INDEX NAME)



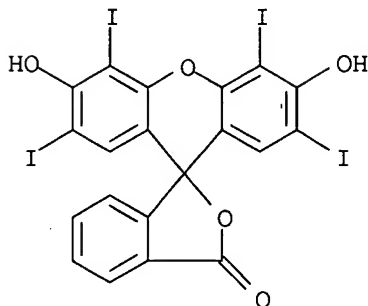
IT 15905-32-5, Tetraiodofluorescein

RL: ARG (Analytical reagent use); ANST (Analytical study); USES (Uses)

(zinc determination in alloys by spectrophotometry with complexation using fluorescein and O-phenanthroline derivs.)

RN 15905-32-5 CAPLUS

CN Spiro[isobenzofuran-1(3H),9']-[9H]xanthen]-3-one, 3',6'-dihydroxy-2',4',5',7'-tetraiodo- (9CI) (CA INDEX NAME)

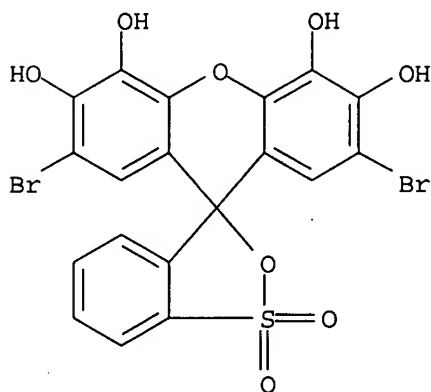


AB Complexation of the Zinc phenanthroline derivative cationic **chelate** with Er-COOH [Er-COOH = tetraiodofluorescein] was studied and a new sensitive method for the determination of zinc was developed. Beer's law is obeyed up to a zinc concentration of 1.5 µg/mL and the molar absorptivity is 6.24×10^5 L/mol-cm for zinc-bathophenanthroline-[L2] complex. The molar ratios of the components and the form of the ternary complex were determined. The formula $[\text{Zn}(\text{L1})_2]^{2+} \cdot [\text{Er-COO}]^-$ is proposed. The present method is 30 times more sensitive than the known PAN method. The method becomes specific for the determination of zinc in its alloys by preceding extraction of ions from thiourea /NH₄SCN into Me isoBu ketone.

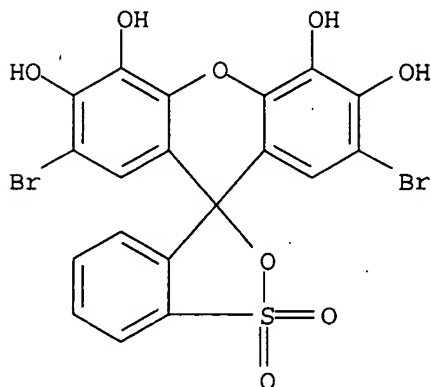
10/665,227

ACCESSION NUMBER: 1980:121173 CAPLUS
DOCUMENT NUMBER: 92:121173
TITLE: Spectrophotometric studies on the **chelates**
of zinc, cadmium and mercury with bromopyrogallol red
in presence of cetyltrimethylammonium bromide
AUTHOR(S): Prakash, Om; Gupta, R. C.; Mushran, S. P.
CORPORATE SOURCE: Chem. Lab., Univ. Allahabad, Allahabad, India
SOURCE: Indian Journal of Chemistry, Section A: Inorganic,
Physical, Theoretical & Analytical (1979), 18A(6),
535-6
CODEN: IJCADU; ISSN: 0376-4710
DOCUMENT TYPE: Journal
LANGUAGE: English

IT 16574-43-9
RL: ANST (Analytical study)
(in determination of Group IIB metals by spectrophotometry)
RN 16574-43-9 CAPLUS
CN Spiro[3H-2,1-benzoxathiole-3,9'-[9H]xanthene]-3',4',5',6'-tetrol,
2',7'-dibromo-, 1,1-dioxide (9CI) (CA INDEX NAME)



IT 16574-43-9D, Group IIB metal complexes
RL: PRP (Properties)
(spectra of)
RN 16574-43-9 CAPLUS
CN Spiro[3H-2,1-benzoxathiole-3,9'-[9H]xanthene]-3',4',5',6'-tetrol,
2',7'-dibromo-, 1,1-dioxide (9CI) (CA INDEX NAME)



AB Bromopyrogallol red (I) forms binary **chelates** with Zn

(λ_{max} , 550 nm), Cd (564 nm), and Hg (400 nm). In the presence of cetyltrimethylammonium (CTA) bromide, green ternary **chelates** (λ_{max} , 600 and 630 nm) are formed. Compns. of binary and ternary **chelates** were determined by the continuous variation and mole ratio methods. The complexes were used for photometric determination of these metal ions. The pH stability range, Beer's law range, Sandell sensitivity, and molar absorptivity value for the systems are: 1:1 Zn-I, 6.0-8.0, 0.23-1.57, 0.060, and 1.8×10^{-4} ; 1:1:5 Zn-I-CTA, 6.0-9.0, 0.13-2.1, 0.004, and 1.97×10^{-4} ; 1:1 Cd-I, 6.0-8.0, 0.22-1.80, 0.011, and 3.4×10^{-4} ; 1:4:4 Cd-I-CTA, 7.0-8.5, 0.05-2.9, 0.002, and 4.1×10^{-4} ; 1:1 Hg(II)-I, 4.5-6.5, 0.90-5.61, 0.040, and 1.0×10^{-4} ; and 1:1:4 Hg(II)-I-CTA, 6.0-8.5, 0.20-22.1 ppm, 0.010 $\mu\text{g}/\text{cm}^2$, and $1.3 \times 10^{-4} \text{ mol}^{-1} \text{ cm}^{-1}$, resp.

L15 ANSWER 26 OF 29 CAPLUS COPYRIGHT 2005 ACS on STN

ACCESSION NUMBER: 1976:127154 CAPLUS

DOCUMENT NUMBER: 84:127154

TITLE: Reactivity of nickel(I) and copper(I) complexes containing 14-membered macrocyclic ligands in aqueous solution

AUTHOR(S): Tait, A. Martin; Hoffman, Morton Z.; Hayon, E.

CORPORATE SOURCE: Dep. Chem., Boston Univ., Boston, MA, USA

SOURCE: Inorganic Chemistry (1976), 15(4), 934-9

CODEN: INOCAJ; ISSN: 0020-1669

DOCUMENT TYPE: Journal

LANGUAGE: English

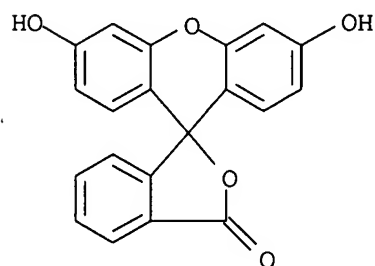
IT 518-47-8 17372-87-1

RL: RCT (Reactant); RACT (Reactant or reagent)

(reduction of, by Cu(I) and Ni(I) **chelates**, kinetics of)

RN 518-47-8 CAPLUS

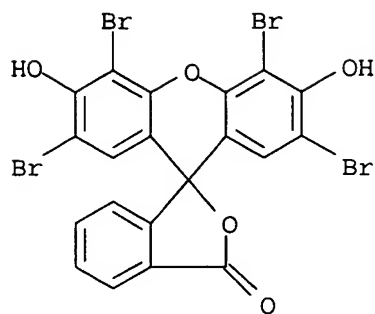
CN Spiro[isobenzofuran-1(3H), 9']-[9H]xanthen]-3-one, 3',6'-dihydroxy-, disodium salt (9CI) (CA INDEX NAME)



●2 Na

RN 17372-87-1 CAPLUS

CN Spiro[isobenzofuran-1(3H), 9']-[9H]xanthen]-3-one, 2',4',5',7'-tetrabromo-3',6'-dihydroxy-, disodium salt (9CI) (CA INDEX NAME)



● 2 Na

AB The fast kinetics technique of pulse radiolysis was used to generate and characterize, in aqueous solution, Ni(I) and Cu(I) complexes containing the tetradentate 14-membered macrocyclic ligands 5,7,7,12,14,14-hexamethyl-1,4,8,11-tetraazacyclotetradeca-4,11-diene (4,11-dieneN4) and 5,5,7,12,12,14-hexamethyl-1,4,8,11-tetraazacyclotetradecane (aneN4). Reduction of the corresponding divalent metal complexes by eaq^- , H atoms, and CO_2^- radicals generates the M(I) species ($k = 108\text{-}1010 \text{ M}^{-1} \text{ sec}^{-1}$); $(\text{CH}_3)_2\text{CO}^-$ and $\cdot\text{CH}_2\text{O}^-$ radicals reduce Cu(II) (4,11-dieneN4) ($k = 9 + 108 \text{ M}^{-1} \text{ sec}^{-1}$). Ni(I) (4,11-dieneN4), Ni(I) (aneN4), and Cu(I) (4,11-dieneN4) show intense absorption band maximum at 460 ($\epsilon 3900 \text{ M}^{-1} \text{ cm}^{-1}$), ($\epsilon 5150 \text{ M}^{-1} \text{ cm}^{-1}$), and 410 nm ($\epsilon 4610 \text{ M}^{-1} \text{ cm}^{-1}$); resp. The decay kinetics of these species were studied as a function of pH and in the presence of scavenging solutes. The M(I) complexes behave as bases, reacting with H_3O^+ , AcOH and H_2PO_4^- . They are also good reducing agents, transferring an electron to a variety of organic acceptors and 1-electron oxidants such as Co(III), Cr(III), Ru(III), and Fe(III) amine, bipyridyl, and macrocyclic ligand complexes. The M(I) complexes react rapidly with CH_3I , N_2O , and O_2 . In the latter reaction, the Ni(I) species produce O_2^- in solution, while the Cu(I) complex does not and appears to react with O_2 via an addition mechanism.

L15 ANSWER 27 OF 29 CAPLUS COPYRIGHT 2005 ACS on STN

ACCESSION NUMBER: 1975:460228 CAPLUS

DOCUMENT NUMBER: 83:60228

TITLE: Singlet oxygen and polymer photooxidations. I. Sensitizers, quenchers, and reactants

AUTHOR(S): Zweig, A.; Henderson, W. A., Jr.

CORPORATE SOURCE: Chem. Res. Div., Am. Cyanamid Co., Stamford, CT, USA

SOURCE: Journal of Polymer Science, Polymer Chemistry Edition (1975), 13(3), 717-36

CODEN: JPLCAT; ISSN: 0449-296X

DOCUMENT TYPE: Journal

LANGUAGE: English

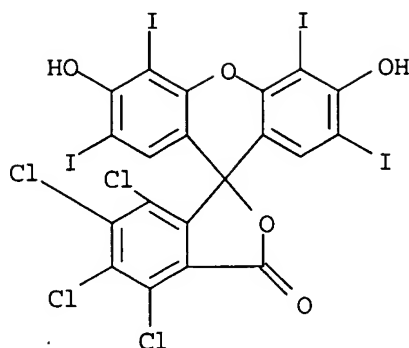
IT 632-68-8

RL: USES (Uses)

(sensitizers for singlet oxygen in polymers)

RN 632-68-8 CAPLUS

CN Spiro[isobenzofuran-1(3H),9'-[9H]xanthen]-3-one, 4,5,6,7-tetrachloro-3',6'-dihydroxy-2',4',5',7'-tetraiodo-, dipotassium salt (9CI) (CA INDEX NAME)



● 2 K

AB Unsatd. polymers were very reactive to photosensitization-produced singlet oxygen, and formed OH and CO derivs. with decreased elasticity. Many types of **transition metal chelates** were effective singlet oxygen quenchers. Their structural property-quenching efficiency relation was discussed. With the exception of the azo compds., most dyes were effective sensitizers of singlet oxygen in polymer films. Phthalocyanine pigments were ineffective.

L15 ANSWER 28 OF 29 CAPLUS COPYRIGHT 2005 ACS on STN

ACCESSION NUMBER: 1976:486752 CAPLUS

DOCUMENT NUMBER: 85:86752

TITLE: Bromopyrogallol red as an interesting chromogenic reagent for the microdetermination of metal ions

AUTHOR(S): Pande, S. C.; Sangal, S. P.

CORPORATE SOURCE: Laxminarayan Inst. Technol., Nagpur Univ., Nagpur, India

SOURCE: Chemical Era (1975), 11(8), 29-33

CODEN: CHERDB; ISSN: 0009-2533

DOCUMENT TYPE: Journal

LANGUAGE: English

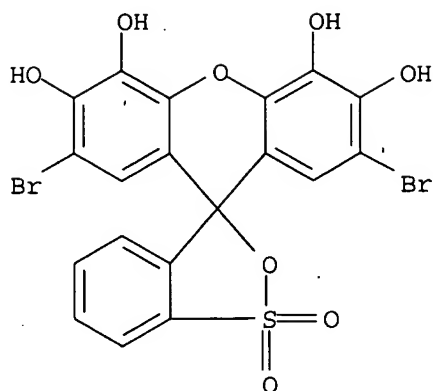
IT **16574-43-9D**, Spiro[3H-2,1-benzoxathiole-3,9'-[9H]xanthene]-3',4',5',6'-tetrol, 2',7'-dibromo-, 1,1-dioxide, metal ion complexes

RL: PRP (Properties)

(formation consts. and spectra of)

RN 16574-43-9 CAPLUS

CN Spiro[3H-2,1-benzoxathiole-3,9'-[9H]xanthene]-3',4',5',6'-tetrol, 2',7'-dibromo-, 1,1-dioxide (9CI) (CA INDEX NAME)

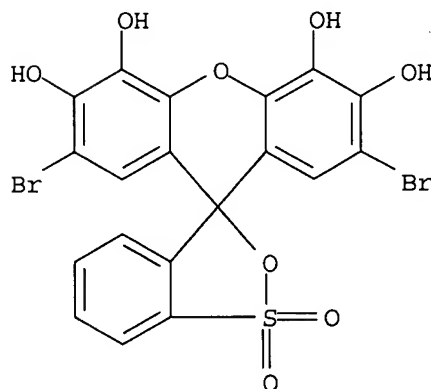


IT 16574-43-9

RL: ANST (Analytical study)

(in spectrophotometric determination of metal ions)

RN 16574-43-9 CAPLUS

CN Spiro[3H-2,1-benzoxathiole-3,9'-(9H)xanthene]-3',4',5',6'-tetrol,
2',7'-dibromo-, 1,1-dioxide (9CI) (CA INDEX NAME)

AB The use of bromopyrogallol red (I) as a chromogenic reagent for the spectrophotometric detns. of metal ions was studied. The formation consts., pH ranges of stability, and wavelengths of maximum absorbance were determined for the 1:1 **chelates** of Sc, Y, La, Ti, Zr, Hf, Th, U, Mo, and W and 1:2 **chelates** of Al, Ga, and In. The optimum conditions for the detns. of the metals were determined, viz. pH, wavelengths, molar absorptivities, ranges of Beer's law validity, sensitivity indexes, and interfering metal tolerance limits.

L15 ANSWER 29 OF 29 CAPLUS COPYRIGHT 2005 ACS on STN

ACCESSION NUMBER: 1969:487330 CAPLUS

DOCUMENT NUMBER: 71:87330

TITLE: Hydroxyfluoran and its derivatives as organic reagents. VIII. Synthesis of 3',4',5',6'-tetrahydroxyfluoran derivatives and determination of bismuth and antimony

AUTHOR(S): Mori, Itsuo

CORPORATE SOURCE: Osaka Coll. Pharm., Osaka, Japan

SOURCE: Yakugaku Zasshi (1969), 89(4), 475-81

CODEN: YKKZAJ; ISSN: 0031-6903

DOCUMENT TYPE: Journal

10/665,227

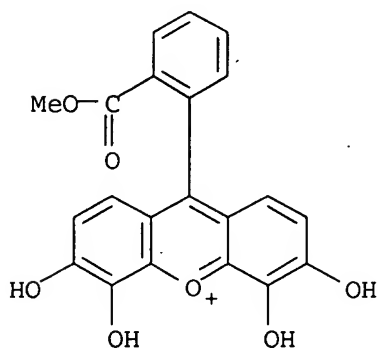
LANGUAGE: Japanese

IT 24921-41-3 24921-42-4

RL: ANST (Analytical study)
(as indicator in chelatometry)

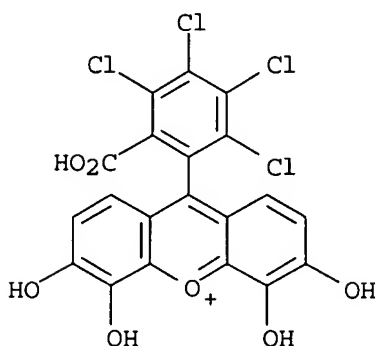
RN 24921-41-3 CAPLUS

CN Xanthylium, 9-(o-carboxyphenyl)-3,4,5,6-tetrahydroxy-, methyl ester (8CI)
(CA INDEX NAME)



RN 24921-42-4 CAPLUS

CN Xanthylium, 9-(2-carboxy-3,4,5,6-tetrachlorophenyl)-3,4,5,6-tetrahydroxy-
(8CI) (CA INDEX NAME)



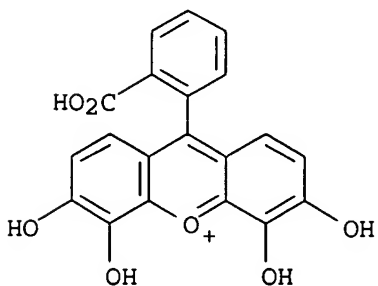
IT 24921-37-7 24921-38-8 24921-39-9

25167-22-0 25167-23-1

RL: ANST (Analytical study)
(in determination of metals)

RN 24921-37-7 CAPLUS

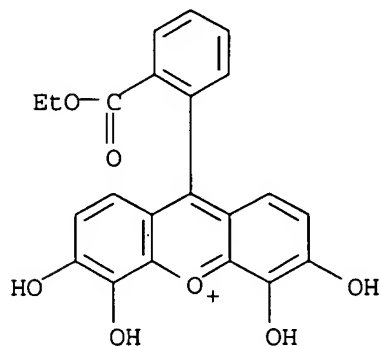
CN Xanthylium, 9-(o-carboxyphenyl)-3,4,5,6-tetrahydroxy- (8CI) (CA INDEX
NAME)



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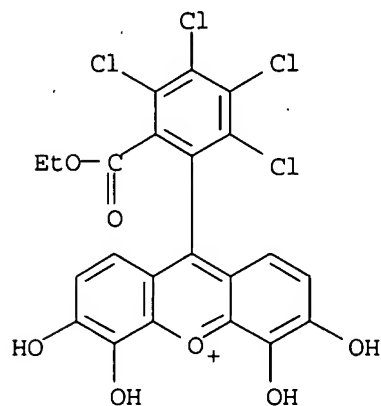
RN 24921-38-8 CAPLUS

CN Xanthylium, 9-(o-carboxyphenyl)-3,4,5,6-tetrahydroxy-, ethyl ester (8CI)
(CA INDEX NAME)



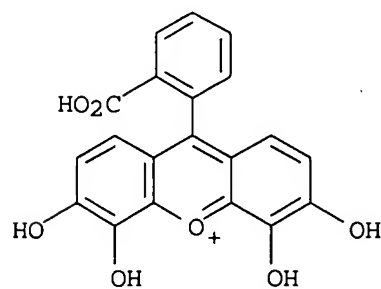
RN 24921-39-9 CAPLUS

CN Xanthylium, 9-(2-carboxy-3,4,5,6-tetrachlorophenyl)-3,4,5,6-tetrahydroxy-, ethyl ester (8CI) (CA INDEX NAME)



RN 25167-22-0 CAPLUS

CN Xanthylium, 9-(dicarboxyphenyl)-3,4,5,6-tetrahydroxy- (8CI) (CA INDEX NAME)

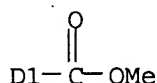
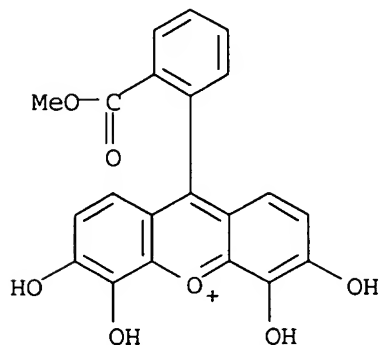


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RN 25167-23-1 CAPLUS

CN Xanthylium, 9-(2,?-dicarboxyphenyl)-3,4,5,6-tetrahydroxy-, dimethyl ester
(8CI) (CA INDEX NAME)

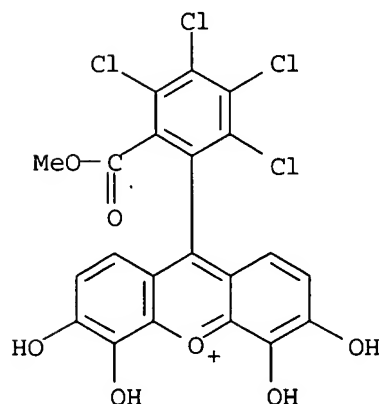


IT 24921-40-2

RL: ANST (Analytical study)
(in determination of pnictides)

RN 24921-40-2 CAPLUS

CN Xanthylium, 3,4,5,6-tetrahydroxy-9-[2,3,4,5-tetrachloro-6-(methoxycarbonyl)phenyl]- (9CI) (CA INDEX NAME)



IT 24921-33-3P 24921-34-4P 24921-35-5P

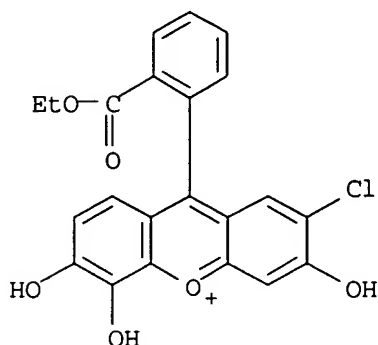
24921-36-6P 24921-37-7DP, Xanthylium,
9-(o-carboxyphenyl)-3,4,5,6-tetrahydroxy-, metal complexes
24921-38-8DP, Xanthylium, 9-(o-carboxyphenyl)-3,4,5,6-tetrahydroxy-
, ethyl ester, metal complexes 24921-39-9DP, Xanthylium,
9-(2-carboxy-3,4,5,6-tetrachlorophenyl)-3,4,5,6-tetrahydroxy-, ethyl
ester, metal complexes 24921-40-2DP, Xanthylium,
9-(2-carboxy-3,4,5,6-tetrachlorophenyl)-3,4,5,6-tetrahydroxy-, methyl
ester, pnictide complexes 24921-41-3DP, Xanthylium,
9-(o-carboxyphenyl)-3,4,5,6-tetrahydroxy-, methyl ester, metal complexes
24921-42-4DP, Xanthylium, 9-(2-carboxy-3,4,5,6-tetrachlorophenyl)-
3,4,5,6-tetrahydroxy-, metal complexes 25167-21-9P
25167-22-0DP, Xanthylium, 9-(dicarboxyphenyl)-3,4,5,6-tetrahydroxy-
, metal complexes

10/665,227

RL: PREP (Preparation)
(preparation of)

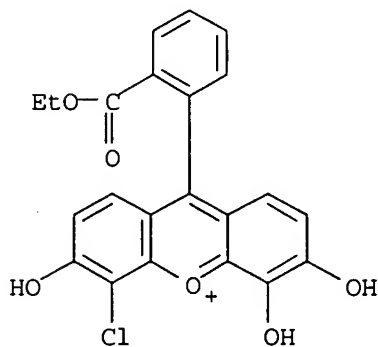
RN 24921-33-3 CAPLUS

CN Xanthylium, 9-(o-carboxyphenyl)-2-chloro-3,5,6-trihydroxy-, ethyl ester
(8CI) (CA INDEX NAME)



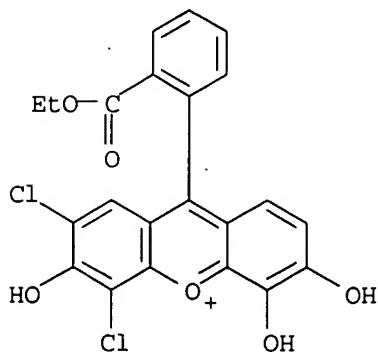
RN 24921-34-4 CAPLUS

CN Xanthylium, 9-(o-carboxyphenyl)-4-chloro-3,5,6-trihydroxy-, ethyl ester
(8CI) (CA INDEX NAME)



RN 24921-35-5 CAPLUS

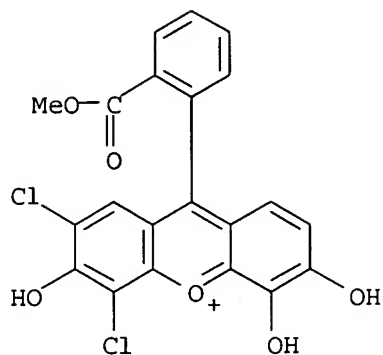
CN Xanthylium, 9-(o-carboxyphenyl)-2,4-dichloro-3,5,6-trihydroxy-, ethyl ester (8CI) (CA INDEX NAME)



RN 24921-36-6 CAPLUS

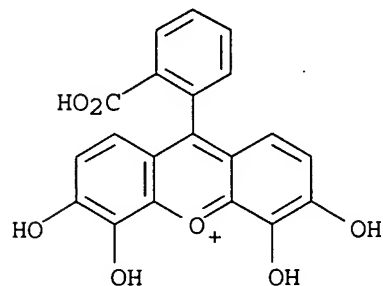
CN Xanthylium, 9-(o-carboxyphenyl)-2,4-dichloro-3,5,6-trihydroxy-, methyl ester (8CI) (CA INDEX NAME)

10/665,227



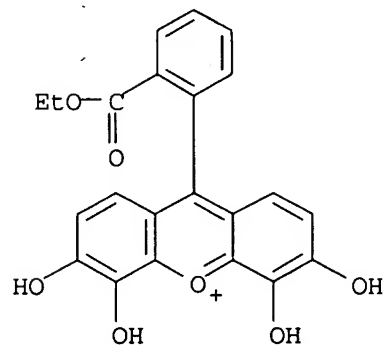
RN 24921-37-7 CAPLUS

CN Xanthylum, 9-(o-carboxyphenyl)-3,4,5,6-tetrahydroxy- (8CI) (CA INDEX NAME)



RN 24921-38-8 CAPLUS

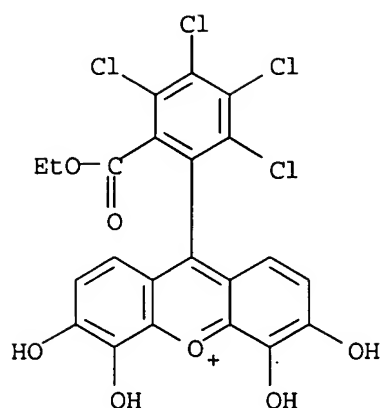
CN Xanthylum, 9-(o-carboxyphenyl)-3,4,5,6-tetrahydroxy-, ethyl ester (8CI) (CA INDEX NAME)



RN 24921-39-9 CAPLUS

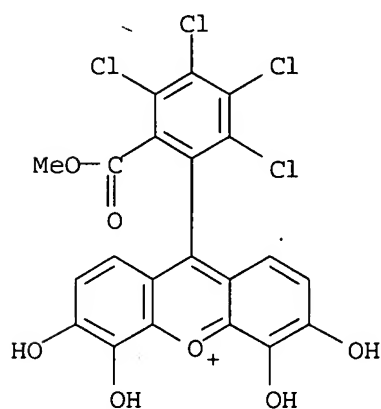
CN Xanthylum, 9-(2-carboxy-3,4,5,6-tetrachlorophenyl)-3,4,5,6-tetrahydroxy-, ethyl ester (8CI) (CA INDEX NAME)

10/665,227



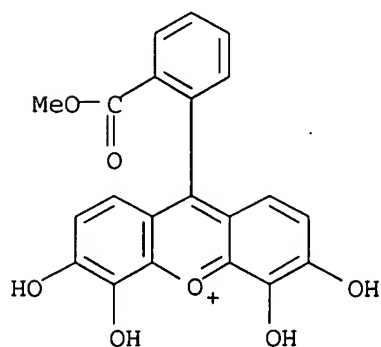
RN 24921-40-2 CAPLUS

CN Xanthylum, 3,4,5,6-tetrahydroxy-9-[2,3,4,5-tetrachloro-6-(methoxycarbonyl)phenyl]- (9CI) (CA INDEX NAME)



RN 24921-41-3 CAPLUS

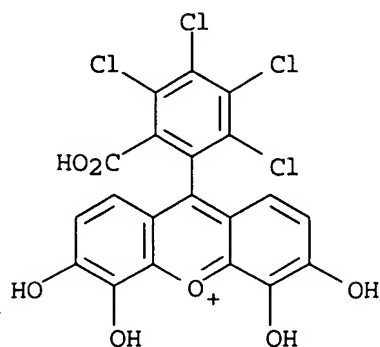
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RN 24921-42-4 CAPLUS

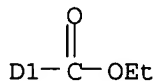
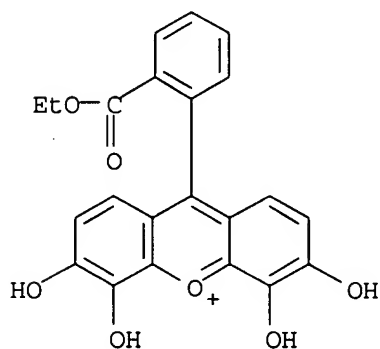
CN Xanthylum, 9-(2-carboxy-3,4,5,6-tetrachlorophenyl)-3,4,5,6-tetrahydroxy- (8CI) (CA INDEX NAME)

10/665,227



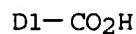
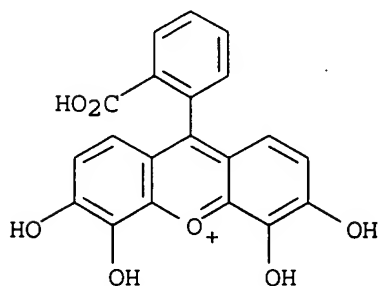
RN 25167-21-9 CAPLUS

CN Xanthylum, 9-(dicarboxyphenyl)-3,4,5,6-tetrahydroxy-, diethyl ester (8CI)
(CA INDEX NAME)



RN 25167-22-0 CAPLUS

CN Xanthylum, 9-(dicarboxyphenyl)-3,4,5,6-tetrahydroxy- (8CI) (CA INDEX NAME)



GI For diagram(s), see printed CA Issue.

AB The following new I were prepared by previously described methods (CA 63:6954d) (X, Y, R, and m.p. given): Cl, H, Et, 213-16°; H, Cl, Et,

10/665,227

272-5°; Cl, Cl, Me, 244-7°; Cl, Cl, Et, 250-60°.

Similarly, II (R = H, Me, or Et), m. 280°, were prepared from trimellitic anhydride. Since II and III are more soluble in organic solvents than I and, unlike I, their solns. exhibit no fluorescence, they are more suitable as organic reagents for determination of Bi, Sb, and other metals.

III(R =

Me) (IV), m. 280°, was selected for **chelate** titration of Bi³⁺, giving a clear blue to red end point. For spot test of Sb³⁺, IV was 10 times as sensitive as I (X = H, Y, = OH, R = Me). IV was also used for spectrophotometric determination of Bi and Sb at 620 and 590 mμ, resp. The calibration curves were linear for 0-10 γ Bi/ml. and 0.4-3 γ Sb/ml. Sn, Th, Fe(III), Zr, and Mo over the limits of 1:10-50 interfered.

=> log y

COST IN U.S. DOLLARS

SINCE FILE

TOTAL

ENTRY

SESSION

FULL ESTIMATED COST

155.95

349.17

DISCOUNT AMOUNTS (FOR QUALIFYING ACCOUNTS)

SINCE FILE

TOTAL

ENTRY

SESSION

CA SUBSCRIBER PRICE

-21.17

-21.17

STN INTERNATIONAL LOGOFF AT 13:42:25 ON 01 MAR 2005

10/665,227

Connecting via Winsock to STN

Welcome to STN International! Enter x:x

LOGINID:sssptal201txs

PASSWORD:

TERMINAL (ENTER 1, 2, 3, OR ?):2

* * * * * Welcome to STN International * * * * *

NEWS	1		Web Page URLs for STN Seminar Schedule - N. America
NEWS	2		"Ask CAS" for self-help around the clock
NEWS	3	SEP 01	New pricing for the Save Answers for SciFinder Wizard within STN Express with Discover!
NEWS	4	OCT 28	KOREAPAT now available on STN
NEWS	5	NOV 30	PHAR reloaded with additional data
NEWS	6	DEC 01	LISA now available on STN
NEWS	7	DEC 09	12 databases to be removed from STN on December 31, 2004
NEWS	8	DEC 15	MEDLINE update schedule for December 2004
NEWS	9	DEC 17	ELCOM reloaded; updating to resume; current-awareness alerts (SDIs) affected
NEWS	10	DEC 17	COMPUAB reloaded; updating to resume; current-awareness alerts (SDIs) affected
NEWS	11	DEC 17	SOLIDSTATE reloaded; updating to resume; current-awareness alerts (SDIs) affected
NEWS	12	DEC 17	CERAB reloaded; updating to resume; current-awareness alerts (SDIs) affected
NEWS	13	DEC 17	THREE NEW FIELDS ADDED TO IFIPAT/IFIUDB/IFICDB
NEWS	14	DEC 30	EPFULL: New patent full text database to be available on STN
NEWS	15	DEC 30	CAPLUS - PATENT COVERAGE EXPANDED
NEWS	16	JAN 03	No connect-hour charges in EPFULL during January and February 2005
NEWS	17	FEB 25	CA/CAPLUS - Russian Agency for Patents and Trademarks (ROSPATENT) added to list of core patent offices covered
NEWS	18	FEB 10	STN Patent Forums to be held in March 2005
NEWS	19	FEB 16	STN User Update to be held in conjunction with the 229th ACS National Meeting on March 13, 2005
NEWS	20	FEB 28	PATDPAFULL - New display fields provide for legal status data from INPADOC
NEWS	21	FEB 28	BABS - Current-awareness alerts (SDIs) available
NEWS	22	FEB 28	MEDLINE/LMEDLINE reloaded
NEWS	EXPRESS		JANUARY 10 CURRENT WINDOWS VERSION IS V7.01a, CURRENT MACINTOSH VERSION IS V6.0c(ENG) AND V6.0Jc(JP), AND CURRENT DISCOVER FILE IS DATED 10 JANUARY 2005
NEWS	HOURS		STN Operating Hours Plus Help Desk Availability
NEWS	INTER		General Internet Information
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* * * * * STN Columbus * * * * *

FILE 'HOME' ENTERED AT 11:57:41 ON 01 MAR 2005

=> FIL STNGUIDE

COST IN U.S. DOLLARS	SINCE FILE ENTRY	TOTAL SESSION
FULL ESTIMATED COST	0.21	0.21

FILE 'STNGUIDE' ENTERED AT 11:57:54 ON 01 MAR 2005

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AND TECHNOLOGY CORPORATION, AND FACHINFORMATIONSZENTRUM KARLSRUHE

FILE CONTAINS CURRENT INFORMATION.

LAST RELOADED: Feb 25, 2005 (20050225/UP).

=> FIL HOME

COST IN U.S. DOLLARS	SINCE FILE ENTRY	TOTAL SESSION
FULL ESTIMATED COST	0.06	0.27

FILE 'HOME' ENTERED AT 11:58:00 ON 01 MAR 2005

=> file reg

COST IN U.S. DOLLARS	SINCE FILE ENTRY	TOTAL SESSION
FULL ESTIMATED COST	0.21	0.48

FILE 'REGISTRY' ENTERED AT 11:58:05 ON 01 MAR 2005

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Property values tagged with IC are from the ZIC/VINITI data file
provided by InfoChem.

STRUCTURE FILE UPDATES: 27 FEB 2005 HIGHEST RN 838819-79-7

DICTIONARY FILE UPDATES: 27 FEB 2005 HIGHEST RN 838819-79-7

TSCA INFORMATION NOW CURRENT THROUGH JANUARY 18, 2005

Please note that search-term pricing does apply when
conducting SmartSELECT searches.

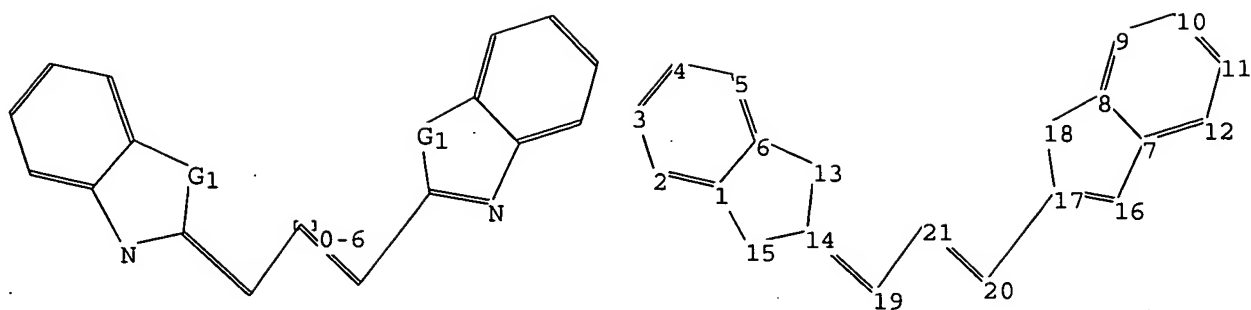
Crossover limits have been increased. See HELP CROSSOVER for details.

Experimental and calculated property data are now available. For more
information enter HELP PROP at an arrow prompt in the file or refer
to the file summary sheet on the web at:
<http://www.cas.org/ONLINE/DBSS/registryss.html>

=>

Uploading C:\Program Files\Stnexp\Queries\106652271.str

10/665,227



chain nodes :

19 20 21

ring nodes :

1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18

chain bonds :

14-19 17-20 19-21 20-21

ring bonds :

1-2 1-6 1-15 2-3 3-4 4-5 5-6 6-13 7-8 7-12 7-16 8-9 8-18 9-10 10-11
11-12 13-14 14-15 16-17 17-18

exact/norm bonds :

1-15 6-13 7-16 8-18 13-14 14-15 14-19 16-17 17-18 17-20 19-21 20-21

normalized bonds :

1-2 1-6 2-3 3-4 4-5 5-6 7-8 7-12 8-9 9-10 10-11 11-12

isolated ring systems :

containing 1 : 7 :

G1:C,O,S,N

Match level :

1:Atom 2:Atom 3:Atom 4:Atom 5:Atom 6:Atom 7:Atom 8:Atom 9:Atom 10:Atom
11:Atom 12:Atom 13:Atom 14:Atom 15:Atom 16:Atom 17:Atom 18:Atom 19:CLASS
20:CLASS 21:CLASS

L1 STRUCTURE UPLOADED

=> s l1

SAMPLE SEARCH INITIATED 11:58:26 FILE 'REGISTRY'

SAMPLE SCREEN SEARCH COMPLETED - 2289 TO ITERATE

43.7% PROCESSED 1000 ITERATIONS
INCOMPLETE SEARCH (SYSTEM LIMIT EXCEEDED)
SEARCH TIME: 00.00.01

50 ANSWERS

FULL FILE PROJECTIONS: ONLINE **COMPLETE**
BATCH **COMPLETE**

PROJECTED ITERATIONS: 42911 TO 48649
PROJECTED ANSWERS: 15540 TO 19068

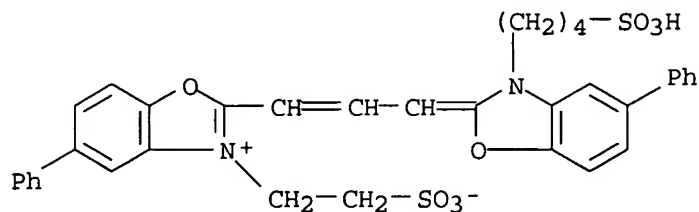
L2 50 SEA SSS SAM L1

=> d scan

L2 50 ANSWERS REGISTRY COPYRIGHT 2005 ACS on STN

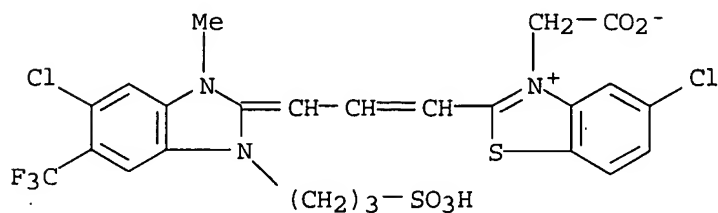
10/665,227

IN Benzoxazolium, 5-phenyl-2-[3-[5-phenyl-3-(4-sulfoethyl)-2(3H)-
benzoxazolylidene]-1-propenyl]-3-(2-sulfoethyl)-, inner salt (9CI)
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CI COM

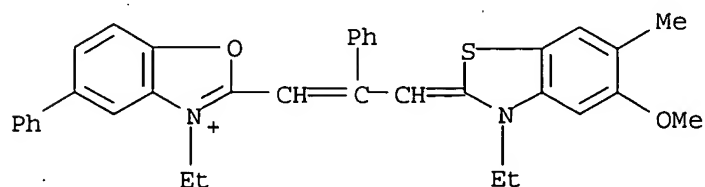


HOW MANY MORE ANSWERS DO YOU WISH TO SCAN? (1):4

L2 50 ANSWERS REGISTRY COPYRIGHT 2005 ACS on STN
IN Benzothiazolium, 3-(carboxymethyl)-5-chloro-2-[3-[5-chloro-1,3-dihydro-3-
methyl-1-(3-sulfoethyl)-6-(trifluoromethyl)-2H-benzimidazol-2-ylidene]-1-
propenyl]-, inner salt (9CI)
MF C24 H20 Cl2 F3 N3 O5 S2
CI COM

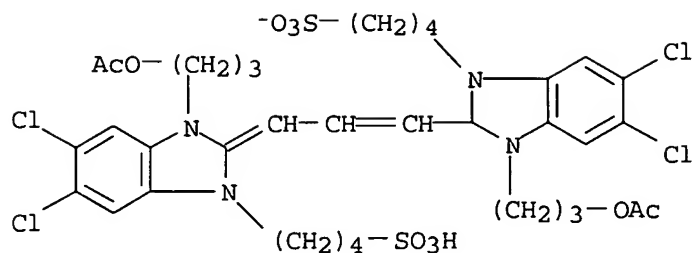


L2 50 ANSWERS REGISTRY COPYRIGHT 2005 ACS on STN
IN Benzoxazolium, 3-ethyl-2-[β-[(3-ethyl-5-methoxy-6-methyl-2-
benzothiazolinyldiene)methyl]styryl]-5-phenyl- (8CI)
MF C35 H33 N2 O2 S
CI COM



L2 50 ANSWERS REGISTRY COPYRIGHT 2005 ACS on STN
IN 1H-Benzimidazolium, 1-[3-(acetyloxy)propyl]-2-[3-[1-[3-(acetyloxy)propyl]-
5,6-dichloro-1,3-dihydro-3-(4-sulfoethyl)-2H-benzimidazol-2-ylidene]-1-
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MF C35 H42 Cl4 N4 O10 S2
CI COM

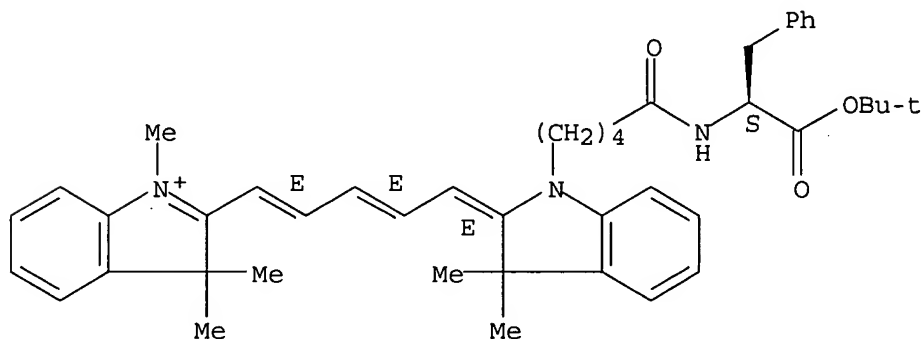
10/665,227



ONE OR MORE TAUTOMERIC DOUBLE BONDS NOT DISPLAYED IN THE STRUCTURE

L2 50 ANSWERS REGISTRY COPYRIGHT 2005 ACS on STN
IN 3H-Indolium, 2-[(1E,3E,5E)-5-[1-[5-[[[(1S)-2-(1,1-dimethylethoxy)-2-oxo-1-(phenylmethyl)ethyl]amino]-5-oxopentyl]-1,3-dihydro-3,3-dimethyl-2H-indol-2-ylidene]-1,3-pentadienyl]-1,3,3-trimethyl- (9CI)
MF C44 H54 N3 O3
CI COM

Absolute stereochemistry.
Double bond geometry as shown.



HOW MANY MORE ANSWERS DO YOU WISH TO SCAN? (1):0

=> s 11 ful
FULL SEARCH INITIATED 11:59:05 FILE 'REGISTRY'
FULL SCREEN SEARCH COMPLETED - 45190 TO ITERATE

100.0% PROCESSED 45190 ITERATIONS
SEARCH TIME: 00.00.01

17732 ANSWERS

L3 17732 SEA SSS FUL L1

=> file caplus
COST IN U.S. DOLLARS
FULL ESTIMATED COST

SINCE FILE	TOTAL
ENTRY	SESSION
161.76	162.24

FILE 'CAPLUS' ENTERED AT 11:59:14 ON 01 MAR 2005
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FILE COVERS 1907 - 1 Mar 2005 VOL 142 ISS 10
FILE LAST UPDATED: 28 Feb 2005 (20050228/ED)

This file contains CAS Registry Numbers for easy and accurate substance identification.

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=> s l3
L4          9513 L3

=> s l4 and metal
          1553024 METAL
          788862 METALS
          1884659 METAL
                (METAL OR METALS)
L5          585 L4 AND METAL

=> s l4 and trabsition metal
          0 TRABSITION
          1553024 METAL
          788862 METALS
          1884659 METAL
                (METAL OR METALS)
          0 TRABSITION METAL
                (TRABSITION(W)METAL)
L6          0 L4 AND TRABSITION METAL

=> s l4 and transition metal
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          243225 TRANSITIONS
          979313 TRANSITION
                (TRANSITION OR TRANSITIONS)
          1553024 METAL
          788862 METALS
          1884659 METAL
                (METAL OR METALS)
          168589 TRANSITION METAL
                (TRANSITION(W)METAL)
L7          62 L4 AND TRANSITION METAL

=> s l7 and label
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          18817 LABELS
          67059 LABEL
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L8          5 L7 AND LABEL

=> s l7 and probe
          204483 PROBE
          102924 PROBES
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10/665,227

271507 PROBE

(PROBE OR PROBES)

L9 4 L7 AND PROBE

=> s 17 and chelate

42169 CHELATE

26322 CHELATES

55922 CHELATE

(CHELATE OR CHELATES)

L10 6 L7 AND CHELATE

=> dup rem 18 19 110

PROCESSING COMPLETED FOR L8

PROCESSING COMPLETED FOR L9

PROCESSING COMPLETED FOR L10

L11 12 DUP REM L8 L9 L10 (3 DUPLICATES REMOVED)

=> d 17 ibib hitstr abs 1-62

L7 ANSWER 2 OF 62 CAPLUS COPYRIGHT 2005 ACS on STN

ACCESSION NUMBER: 2003:875484 CAPLUS

DOCUMENT NUMBER: 139:361233

TITLE: Bis-~~transition-metal~~

-chelate-probes

INVENTOR(S): Ebright, Richard H.; Ebright, Yon W.

PATENT ASSIGNEE(S): Rutgers, the State of University of New Jersey, USA

SOURCE: PCT Int. Appl., 80 pp.

CODEN: PIXXD2

DOCUMENT TYPE: Patent

LANGUAGE: English

FAMILY ACC. NUM. COUNT: 2

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2003091689	A2	20031106	WO 2002-US36180	20021112
WO 2003091689	A3	20041223		
W:	AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, OM, PH, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZM, ZW			
RW:	GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG			
EP 1506402	A2	20050216	EP 2002-807321	20021112
R:	AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR, BG, CZ, EE, SK			
US 2004096887	A1	20040520	US 2003-665227	20030917
US 2005031545	A1	20050210	US 2004-946786	20040921
PRIORITY APPLN. INFO.:			US 2002-367775P	P 20020328
			US 2002-410267P	P 20020913
			WO 2002-US36180	W 20021112
			US 2003-665227	A2 20030917

OTHER SOURCE(S): MARPAT 139:361233

IT 389059-73-8P 389059-74-9P

RL: PRP (Properties); RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)

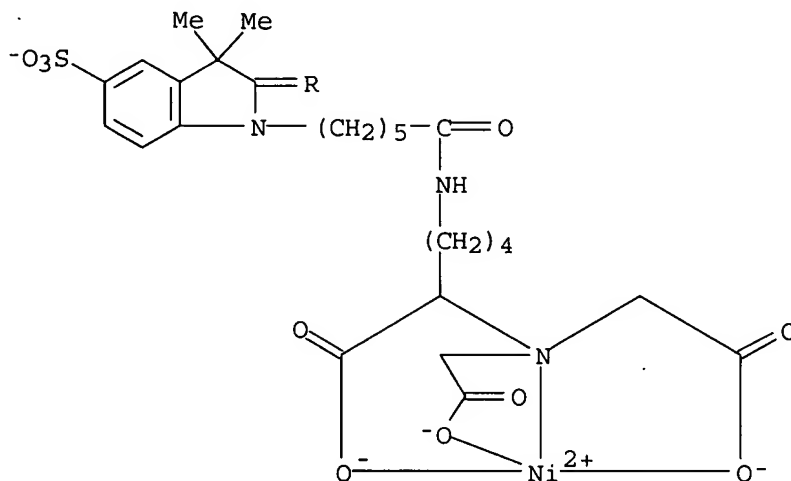
(bis-~~transition-metal~~-chelate-probes)

10/665,227

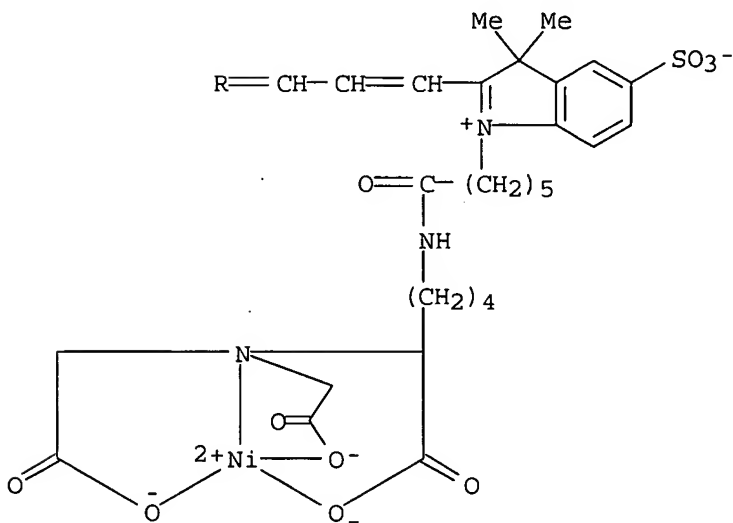
RN 389059-73-8 CAPLUS

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PAGE 1-A

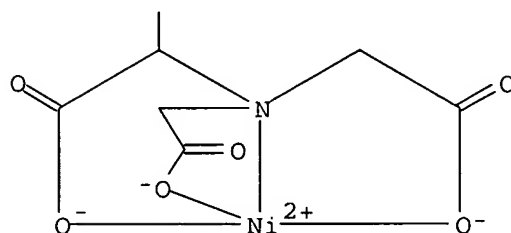
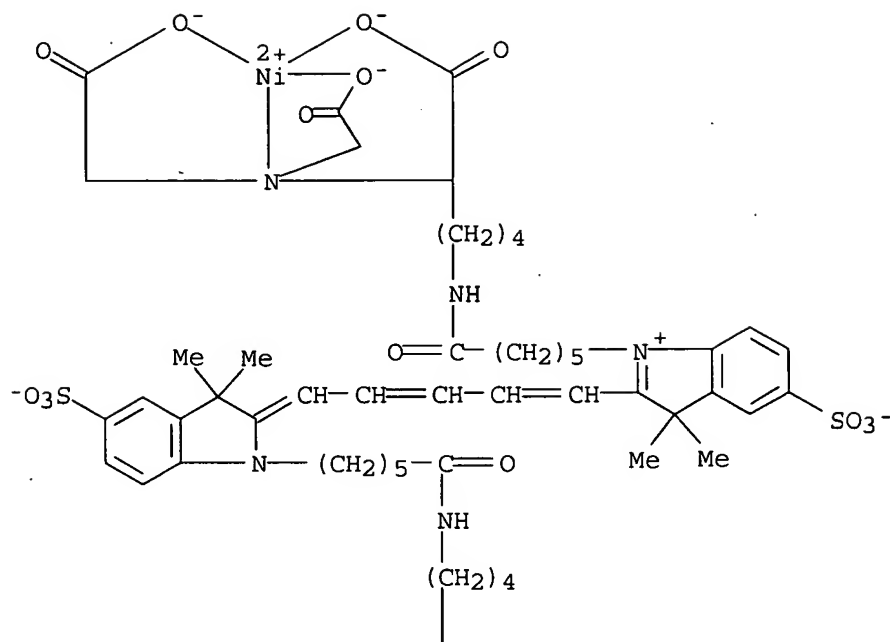


PAGE 2-A



RN 389059-74-9 CAPLUS

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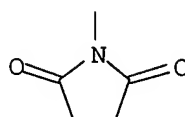
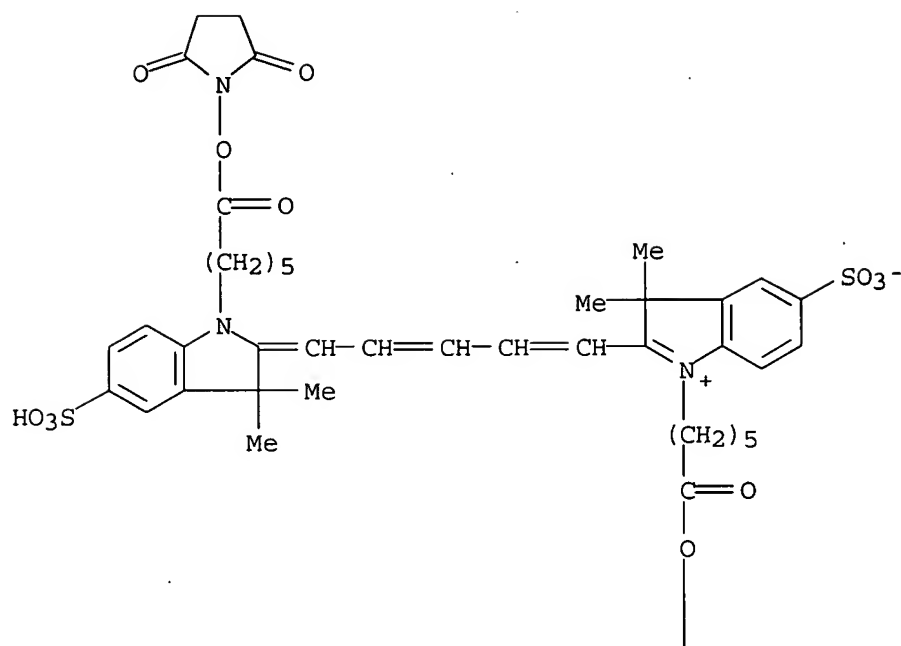
IT 146368-15-2 146397-20-8

RL: RCT (Reactant); RACT (Reactant or reagent)

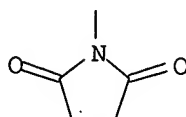
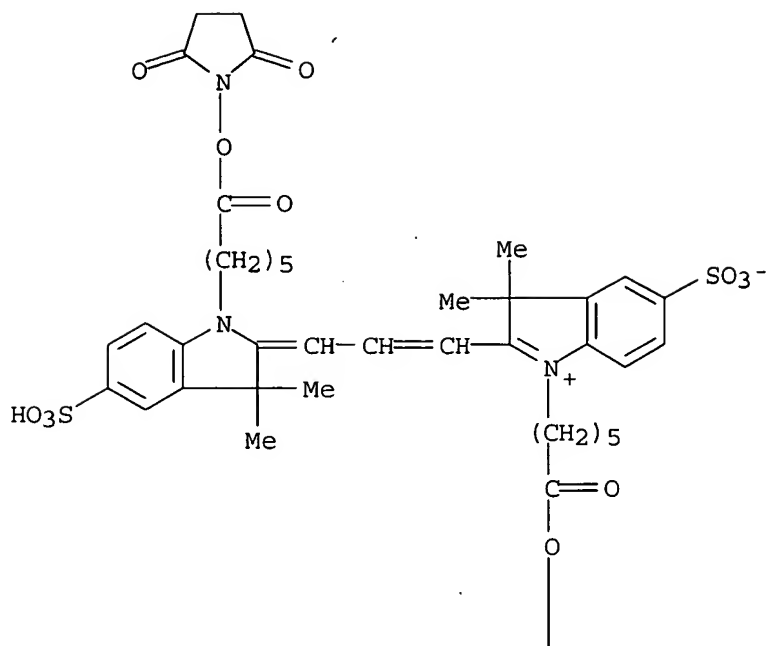
(bis-**transition-metal**-chelate-probes)

RN 146368-15-2 CAPLUS

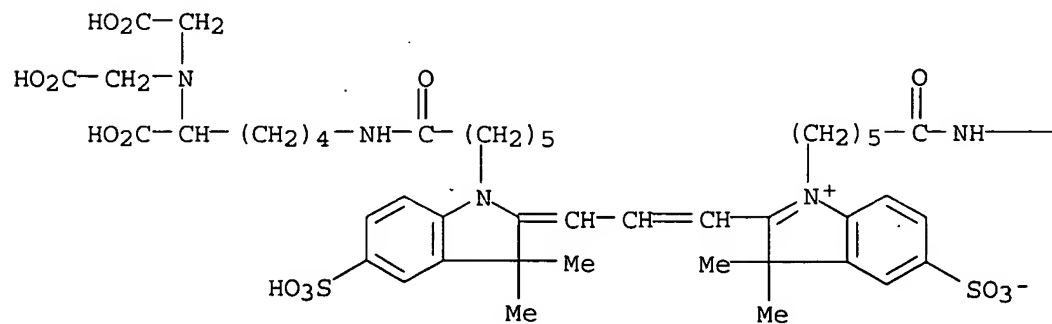
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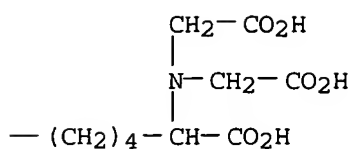


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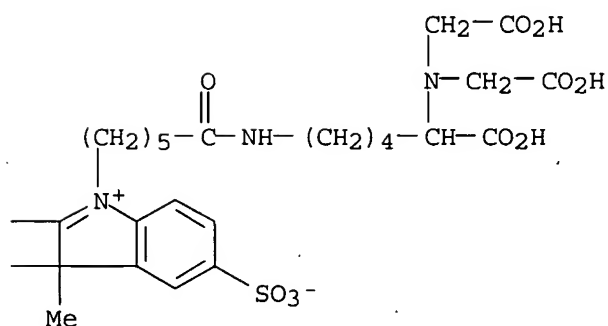
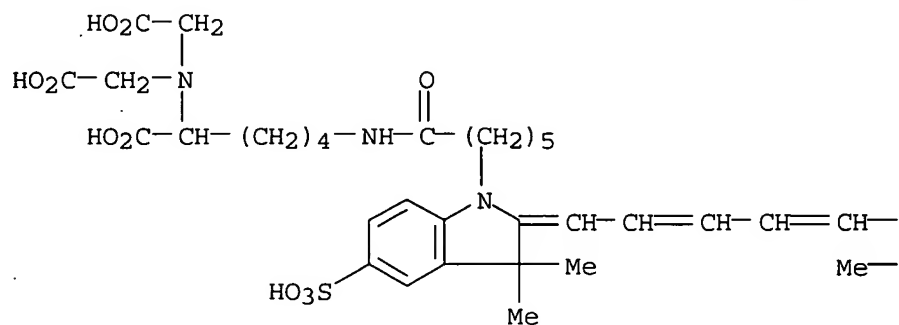
IT 618886-24-1P 618886-25-2P
 RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT
 (Reactant or reagent)
 (bis-transition-metal-chelate-probes)
 RN 618886-24-1 CAPLUS
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RN 618886-25-2 CAPLUS

CN 3H-Indolium, 1-[6-[[5-[bis(carboxymethyl)amino]-5-carboxypentyl]amino]-6-oxohexyl]-2-[5-[1-[6-[[5-[bis(carboxymethyl)amino]-5-carboxypentyl]amino]-6-oxohexyl]-1,3-dihydro-3,3-dimethyl-5-sulfo-2H-indol-2-ylidene]-1,3-pentadienyl]-3,3-dimethyl-5-sulfo-, inner salt (9CI) (CA INDEX NAME)



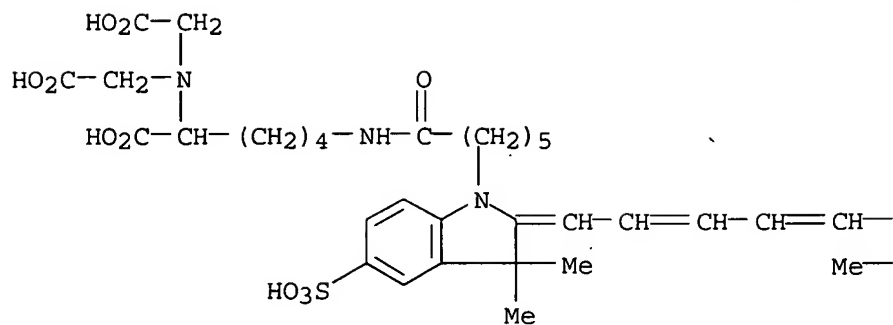
IT 618886-25-2DP, derivs. 618886-26-3DP, derivs..

RL: SPN (Synthetic preparation); PREP (Preparation)
 (bis-transition-metal-chelate-probes)

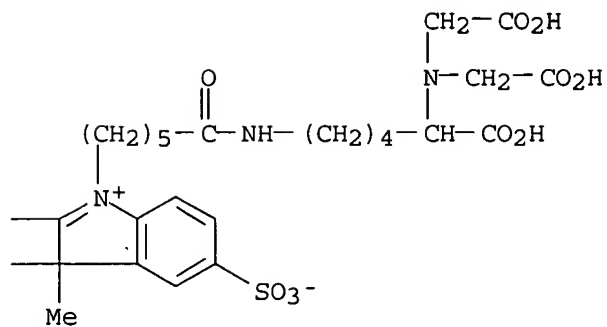
RN 618886-25-2 CAPLUS

CN 3H-Indolium, 1-[6-[[5-[bis(carboxymethyl)amino]-5-carboxypentyl]amino]-6-oxohexyl]-2-[5-[1-[6-[[5-[bis(carboxymethyl)amino]-5-carboxypentyl]amino]-6-oxohexyl]-1,3-dihydro-3,3-dimethyl-5-sulfo-2H-indol-2-ylidene]-1,3-pentadienyl]-3,3-dimethyl-5-sulfo-, inner salt (9CI) (CA INDEX NAME)

PAGE 1-A



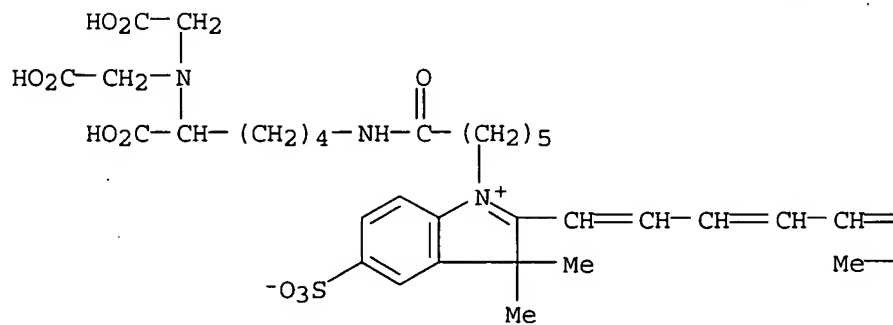
PAGE 1-B

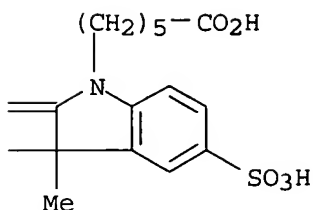


RN 618886-26-3 CAPLUS

CN 3H-Indolium, 1-[6-[[5-[bis(carboxymethyl)amino]-5-carboxypentyl]amino]-6-oxohexyl]-2-[5-[1-(5-carboxypentyl)-1,3-dihydro-3,3-dimethyl-5-sulfo-2H-indol-2-ylidene]-1,3-pentadienyl]-3,3-dimethyl-5-sulfo-, inner salt (9CI)
(CA INDEX NAME)

PAGE 1-A





AB A probe for labeling a target material is provided including two **transition-metal** chelates and detectable group. The probe has the general structural formula (I) wherein: (a) Y and Y' are each a **transition metal**, (b) R1 and R1 are each independently CH(COO-), CH(COOH), or absent; (c) R2 and R2 are linkers each having a length of from about 3.0 to about 20 Å; and (d) X is a detectable group. The linkers may be linear or branched, may contain aromatic moieties, and may optionally be further substituted. Methods of use of the probe in detecting and analyzing target materials of interest also are provided.

L7 ANSWER 3 OF 62 CAPLUS COPYRIGHT 2005 ACS on STN

ACCESSION NUMBER: 2003:397108 CAPLUS

DOCUMENT NUMBER: 138:409441

TITLE: Compositions comprising at least one oxonol dye and at least one metal complex

INVENTOR(S): Schmidhalter, Beat; Adam, Jean-Marie; Feiler, Leonhard; Lehmann, Urs; De Keyzer, Gerardus; Yousaf, Taher

PATENT ASSIGNEE(S): Ciba Specialty Chemicals Holding Inc., Switz.

SOURCE: PCT Int. Appl., 70 pp.

CODEN: PIXXD2

DOCUMENT TYPE: Patent

LANGUAGE: English

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2003042989	A1	20030522	WO 2002-EP12307	20021105
W:	AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, OM, PH, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW			
RW:	GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG			
EP 1444691	A1	20040811	EP 2002-787557	20021105
R:	AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR, BG, CZ, EE, SK			
BR 2002014080	A	20040928	BR 2002-14080	20021105
US 2005003135	A1	20050106	US 2004-495184	20040511
PRIORITY APPLN. INFO.:			EP 2001-811092	A 20011113
			EP 2001-811226	A 20011213

OTHER SOURCE(S):

MARPAT 138:409441

IT 529512-46-7P

RL: PRP (Properties); SPN (Synthetic preparation); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)

(comps. comprising oxonol dye and metal complex for optical recording)

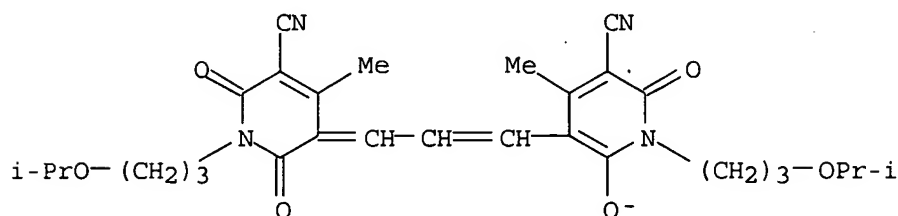
RN 529512-46-7 CAPLUS

CN Benzothiazolium, 6-ethoxy-2-[3-(6-ethoxy-3-ethyl-2(3H)-benzothiazolylidene)-1-propenyl]-3-ethyl-, salt with 5-[3-[5-cyano-1,6-dihydro-2-hydroxy-4-methyl-1-[3-(1-methylethoxy)propyl]-6-oxo-3-pyridinyl]-2-propenylidene]-1,2,5,6-tetrahydro-4-methyl-1-[3-(1-methylethoxy)propyl]-2,6-dioxo-3-pyridinecarbonitrile (1:1) (9CI) (CA INDEX NAME)

CM 1

CRN 529512-34-3

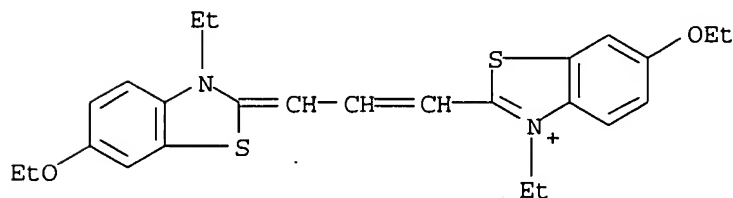
CMF C29 H35 N4 O6



CM 2

CRN 90909-86-7

CMF C25 H29 N2 O2 S2



GI

L7 ANSWER 6 OF 62 CAPLUS COPYRIGHT 2005 ACS on STN

ACCESSION NUMBER: 2001:818766 CAPLUS

DOCUMENT NUMBER: 136:98660

TITLE: Site-specific incorporation of fluorescent probes into protein: Hexahistidine-tag-mediated fluorescent labeling with (Ni2+:Nitrilotriacetic

AUTHOR(S): Kapanidis, Achillefs N.; Ebright, Yon W.; Ebright, Richard H.

CORPORATE SOURCE: Howard Hughes Medical Institute Waksman Institute and Department of Chemistry, Rutgers University, Piscataway, NJ, 08854, USA

SOURCE: Journal of the American Chemical Society (2001), 123(48), 12123-12125

CODEN: JACSAT; ISSN: 0002-7863

PUBLISHER: American Chemical Society

DOCUMENT TYPE: Journal

LANGUAGE: English

IT 389059-71-6P 389059-72-7P 389059-73-8P

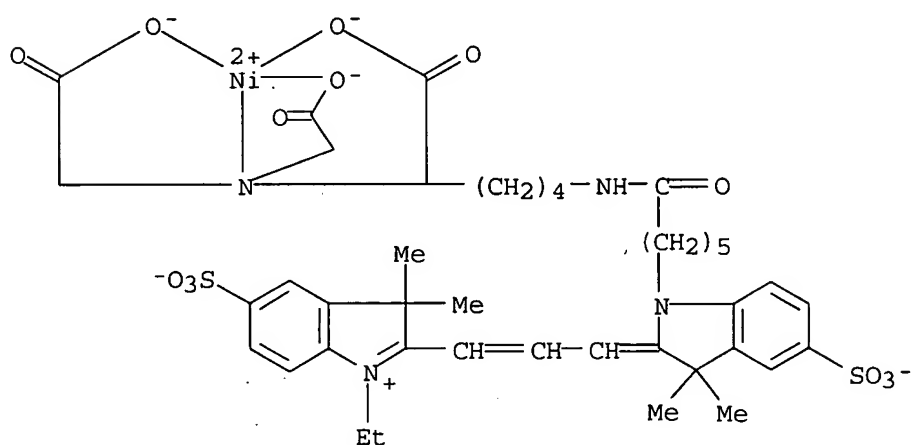
389059-74-9P

RL: ARU (Analytical role, unclassified); SPN (Synthetic preparation); ANST (Analytical study); PREP (Preparation)

(site-specific incorporation of fluorescent probes into protein)

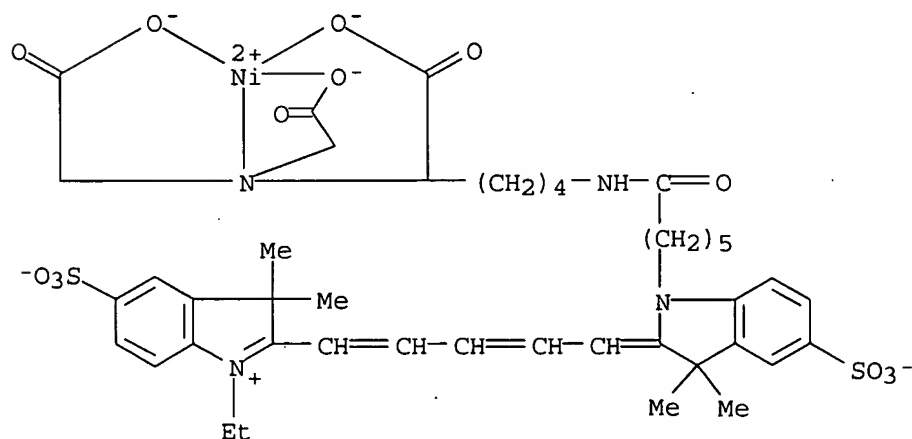
RN 389059-71-6 CAPLUS

CN Nickelate(2-), [2-[3-[1-[6-[[5-[bis[(carboxy-κO)methyl]amino-κN]-5-(carboxy-κO)pentyl]amino]-6-oxohexyl]-1,3-dihydro-3,3-dimethyl-5-sulfo-2H-indol-2-ylidene]-1-propenyl]-1-ethyl-3,3-dimethyl-5-sulfo-3H-indoliumato(5-)]-(9CI) (CA INDEX NAME)



RN 389059-72-7 CAPLUS

CN Nickelate(2-), [2-[5-[1-[6-[[5-[bis[(carboxy-κO)methyl]amino-κN]-5-(carboxy-κO)pentyl]amino]-6-oxohexyl]-1,3-dihydro-3,3-dimethyl-5-sulfo-2H-indol-2-ylidene]-1,3-pentadienyl]-1-ethyl-3,3-dimethyl-5-sulfo-3H-indoliumato(5-)]-(9CI) (CA INDEX NAME)

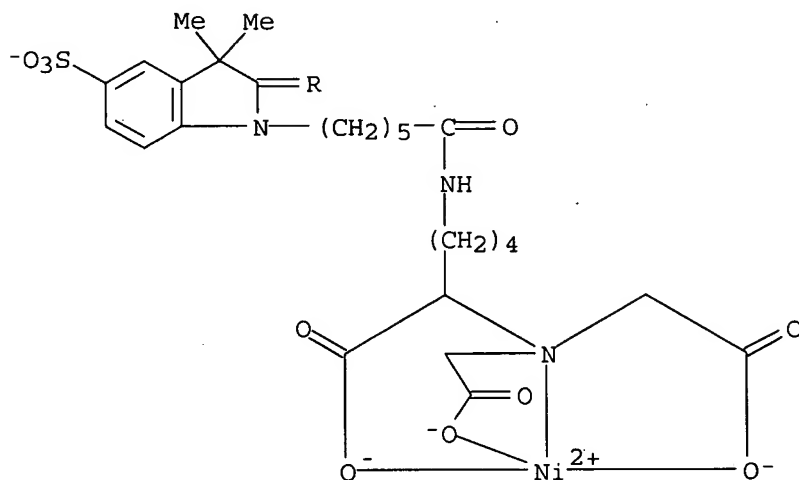


RN 389059-73-8 CAPLUS

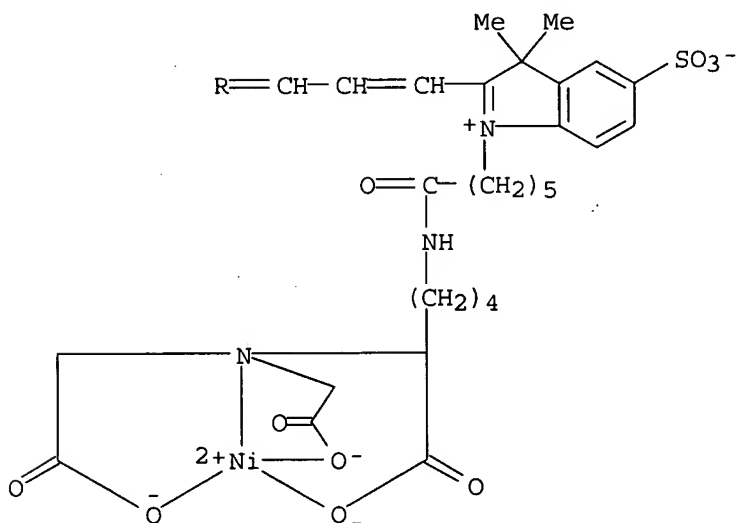
CN Nickelate(3-), [μ-[1-[6-[[5-[bis[(carboxy-κO)methyl]amino-κN]-5-(carboxy-κO)pentyl]amino]-6-oxohexyl]-2-[3-[1-[6-[[5-[bis[(carboxy-κO)methyl]amino-κN]-5-(carboxy-

κ O)pentyl]amino]-6-oxohexyl]-1,3-dihydro-3,3-dimethyl-5-sulfo-2H-indol-2-ylidene]-1-propenyl]-3,3-dimethyl-5-sulfo-3H-indoliumato(8-)]di-(9CI) (CA INDEX NAME)

PAGE 1-A

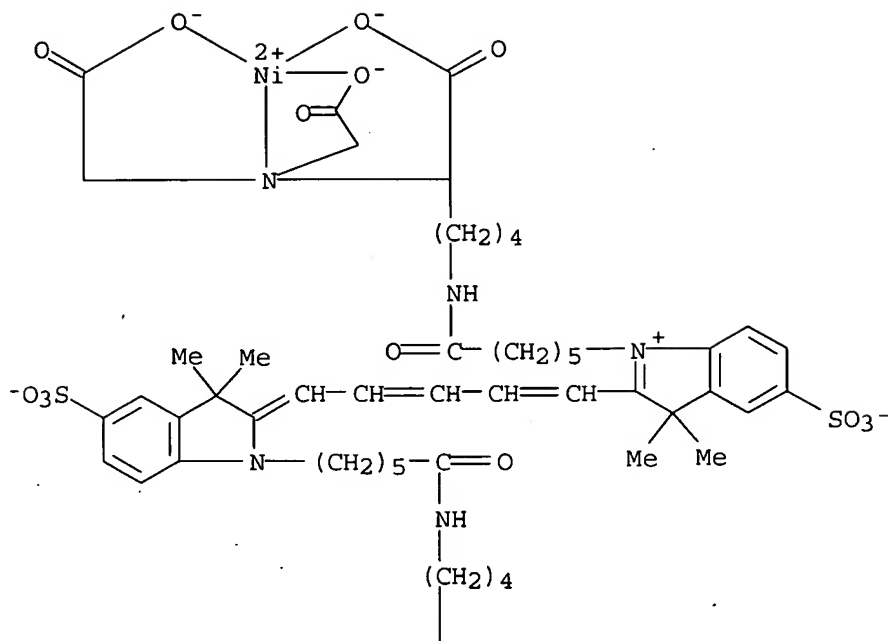


PAGE 2-A



RN 389059-74-9 CAPLUS

CN Nickelate(3-), [μ -[1-[6-[[5-[bis[(carboxy- κ O)methyl]amino- κ N]-5-(carboxy- κ O)pentyl]amino]-6-oxohexyl]-2-[5-[1-[6-[[5-[bis[(carboxy- κ O)methyl]amino- κ N]-5-(carboxy- κ O)pentyl]amino]-6-oxohexyl]-1,3-dihydro-3,3-dimethyl-5-sulfo-2H-indol-2-ylidene]-1,3-pentadienyl]-3,3-dimethyl-5-sulfo-3H-indoliumato(8-)]]]di-(9CI) (CA INDEX NAME)



L7 ANSWER 15 OF 62 CAPLUS COPYRIGHT 2005 ACS on STN
 ACCESSION NUMBER: 2000:238483 CAPLUS
 DOCUMENT NUMBER: 132:271731
 TITLE: Optical storage medium especially suitable for DVD
 (digital video disk)
 INVENTOR(S): Yamazaki, Mikio; Kanno, Toshiyuki
 PATENT ASSIGNEE(S): Fuji Electric Co., Ltd., Japan
 SOURCE: Ger. Offen., 24 pp.
 CODEN: GWXXBX
 DOCUMENT TYPE: Patent
 LANGUAGE: German
 FAMILY ACC. NUM. COUNT: 1
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
DE 19947815	A1	20000413	DE 1999-19947815	19991005
JP 2000108515	A2	20000418	JP 1998-286263	19981008
PRIORITY APPLN. INFO.:			JP 1998-286263	A 19981008
OTHER SOURCE(S):	MARPAT 132:271731			

IT 263368-87-2

RL: DEV (Device component use); USES (Uses)

(asym. cyanine pigment in optical storage medium especially suitable for DVD
 (digital video disk))

RN 263368-87-2 CAPLUS

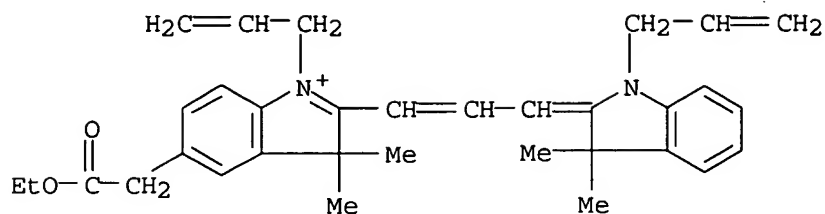
CN 3H-Indolium, 2-[3-[1,3-dihydro-3,3-dimethyl-1-(2-propenyl)-2H-indol-2-ylidene]-1-propenyl]-5-(2-ethoxy-2-oxoethyl)-3,3-dimethyl-1-(2-propenyl)-, perchlorate (9CI) (CA INDEX NAME)

CM 1

CRN 263368-86-1

CMF C33 H39 N2 O2

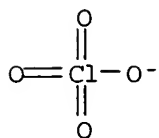
10/665,227



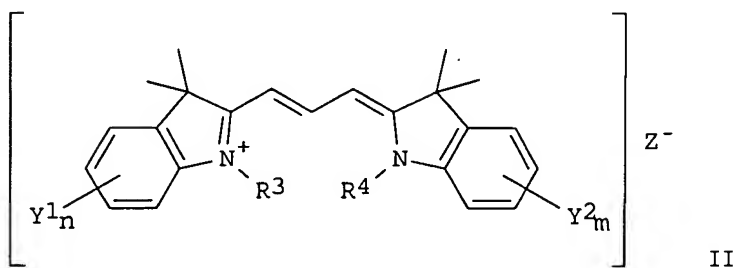
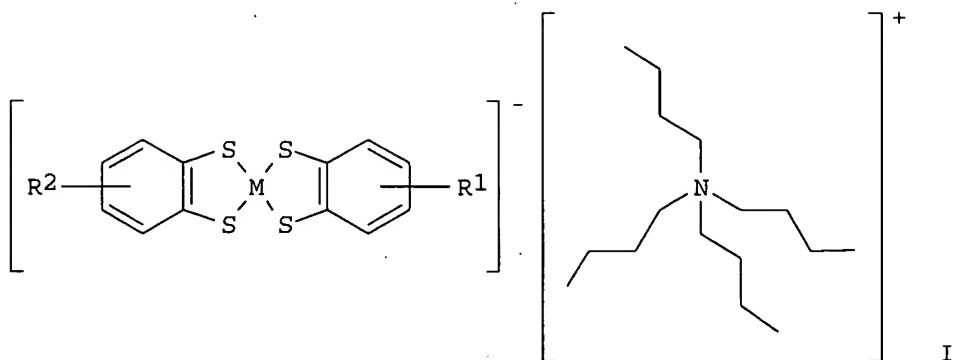
CM 2

CRN 14797-73-0

CMF Cl O4



GI



AB The title optical storage medium comprises 3-30 % of a metal complex salt represented by a general formula I (R1, R2 = electrophilic substituent; M = **transition metal**, rare earth metal) and a cyanine pigment represented by a general formula II (Z- = I-, Br-, ClO4-, BF4-,

10/665,227

PF4-, SbF4-, CH3SO4-, H3C-Ph-SO3-; R3, R4 = C3-18-alkenyl; Y1, Y2 = H, halo, alkyl, aryl, alkoxy, etc.; n, m = 1-4) as a main component, wherein the above asym. cyanine pigment absorbs light at 500-700 nm. The optical reflection layer of the optical storage material comprises Al, Au, Ag, Cu, Ti, Ni, or metallic chalcogenide.

L7 ANSWER 16 OF 62 CAPLUS COPYRIGHT 2005 ACS on STN

ACCESSION NUMBER: 2000:133359 CAPLUS

DOCUMENT NUMBER: 132:173479

TITLE: Optical recording material

INVENTOR(S): Satoh, Tsutomu; Maruyama, Shohji; Ueno, Yasunobu; Tomura, Tatsuya; Sasa, Noboru; Higashi, Yasuhiro

PATENT ASSIGNEE(S): Ricoh Company, Ltd., Japan

SOURCE: Eur. Pat. Appl., 40 pp.

CODEN: EPXXDW

DOCUMENT TYPE: Patent

LANGUAGE: English

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
EP 981132	A1	20000223	EP 1999-116226	19990817
EP 981132	B1	20040506		
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO				
JP 2000127625	A2	20000509	JP 1999-170708	19990617
US 6197477	B1	20010306	US 1999-376197	19990818
PRIORITY APPLN. INFO.:			JP 1998-247867	A 19980818
			JP 1999-170708	A 19990617

OTHER SOURCE(S): MARPAT 132:173479

IT 95415-20-6

RL: TEM (Technical or engineered material use); USES (Uses)
(optical recording materials containing azo chelates and)

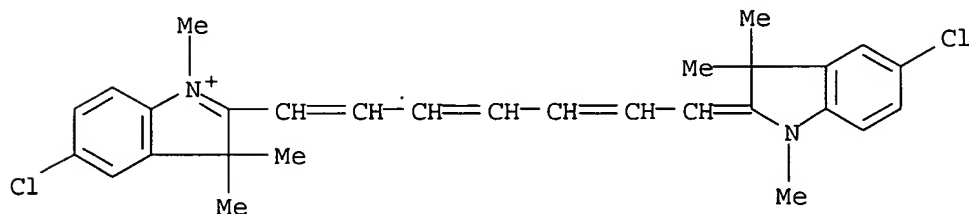
RN 95415-20-6 CAPLUS

CN 3H-Indolium, 5-chloro-2-[7-(5-chloro-1,3,3-trimethyl-2H-indol-2-ylidene)-1,3,5-heptatrienyl]-1,3,3-trimethyl-, perchlorate (9CI) (CA INDEX NAME)

CM 1

CRN 95415-19-3

CMF C29 H31 Cl2 N2

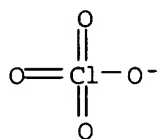


CM 2

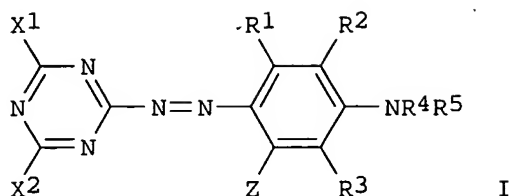
CRN 14797-73-0

CMF Cl O4

10/665,227



GI



AB An optical recording material comprises a substrate and a recording layer which is formed overlying the substrate, wherein the recording layer includes an azo chelate compound including an azo compound having the structure I (R1-3 = H, halogen, nitro, cyano, hydroxy, carboxyl, amino, carbamoyl, alkyl, aryl, heterocyclyl, alkyloxy, aryloxy, alkylamino,

L7 ANSWER 30 OF 62 CAPLUS COPYRIGHT 2005 ACS on STN

ACCESSION NUMBER: 1993:104791 CAPLUS

DOCUMENT NUMBER: 118:104791

TITLE: Sulfur compound-coordinate bonded organic coloring matter, resin compositions containing such, and optical recording materials comprising these

INVENTOR(S): Kawaguchi, Takeyuki; Shiro, Takashi; Sasaki, Katsushi; Iwata, Kaoru

PATENT ASSIGNEE(S): Teijin Ltd., Japan

SOURCE: Eur. Pat. Appl., 31 pp.

CODEN: EPXXDW

DOCUMENT TYPE: Patent

LANGUAGE: English

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
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EP 488231	A1	19920603	EP 1991-120296	19911127
EP 488231	B1	19960501		
R: DE, FR, GB				
US 5268478	A	19931207	US 1991-797137	19911122
JP 05043814	A2	19930223	JP 1991-338004	19911128
JP 2575563	B2	19970129		

PRIORITY APPLN. INFO.: JP 1990-330144 A 19901130

OTHER SOURCE(S): MARPAT 118:104791

IT 146243-92-7P 146243-94-9P 146244-29-3P

146262-13-7P 146282-11-3P 146282-13-5P

146282-30-6P 146291-34-1P 146291-36-3P

RL: IMF (Industrial manufacture); PREP (Preparation)
(preparation of, for erasable optical recording materials)

RN 146243-92-7 CAPLUS

CN 3H-Indolium, 2-[7-(1,3-dihydro-1,3,3-trimethyl-2H-indol-2-ylidene)-1,3,5-heptatrienyl]-1,3,3-trimethyl-, (OC-6-23)-[2,2-bis[[[(mercaptoacetyl)oxy]methyl]-1,3-propanediyl

10/665,227

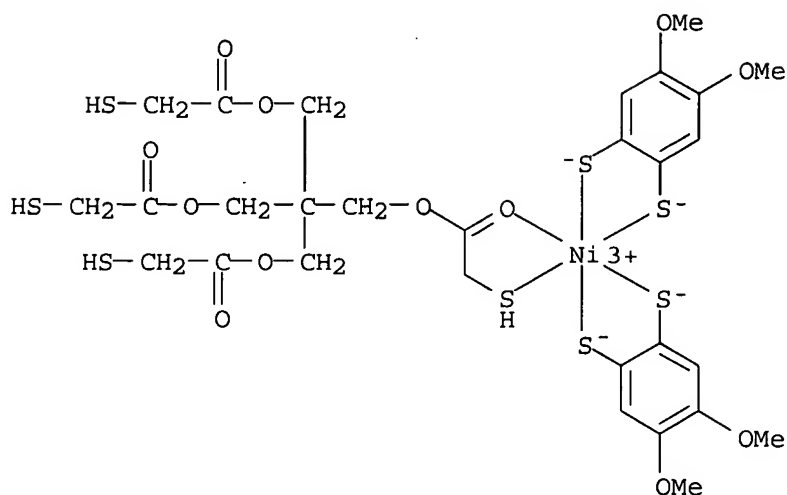
bis(mercaptoacetate)]bis[4,5-dimethoxy-1,2-benzenedithiolato(2-)-
S,S']nickelate(1-) (9CI) (CA INDEX NAME)

CM 1

CRN 146243-91-6

CMF C29 H36 Ni O12 S8

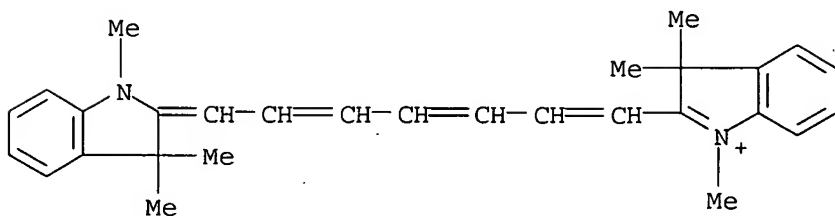
CCI CCS



CM 2

CRN 47676-39-1

CMF C29 H33 N2



RN 146243-94-9 CAPLUS

CN 3H-Indolium, 2-[7-(1,3-dihydro-1,3,3-trimethyl-2H-indol-2-ylidene)-1,3,5-heptatrienyl]-1,3,3-trimethyl-, (OC-6-23)-[2,2-bis[[(mercaptoacetyl)oxy]methyl]-1,3-propanediyl bis(mercaptoacetate)]bis[2,3-dimercapto-2-butenedinitrilato(2-)-S,S']nickelate(1-) (9CI) (CA INDEX NAME)

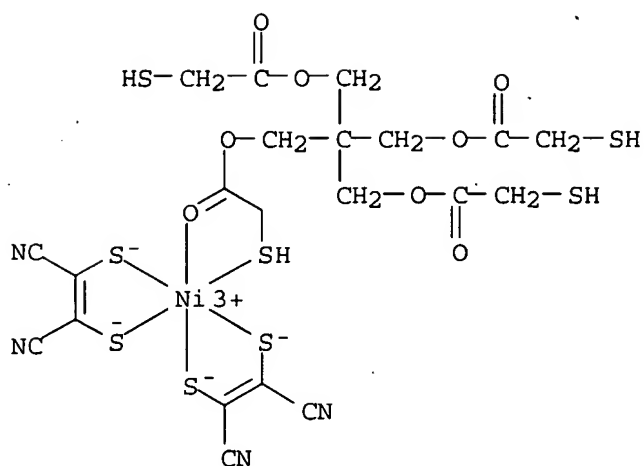
CM 1

CRN 146243-93-8

CMF C21 H20 N4 Ni O8 S8

CCI CCS

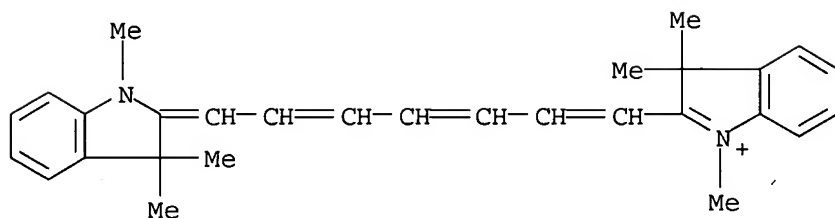
10/665,227



CM 2

CRN 47676-39-1

CMF C29 H33 N2



RN 146244-29-3 CAPLUS

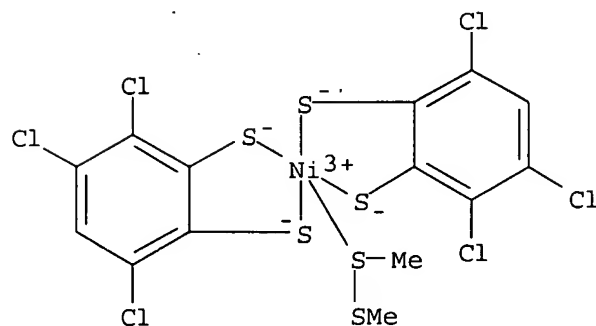
CN 3H-Indolium, 2-[7-(1,3-dihydro-1,3,3-trimethyl-2H-indol-2-ylidene)-1,3,5-heptatrienyl]-1,3,3-trimethyl-, (dimethyl disulfide-S)bis[3,4,6-trichloro-1,2-benzenedithiolato(2-)-S,S']nickelate(1-) (9CI) (CA INDEX NAME)

CM 1

CRN 146244-28-2

CMF C14 H8 Cl6 Ni S6

CCI CCS

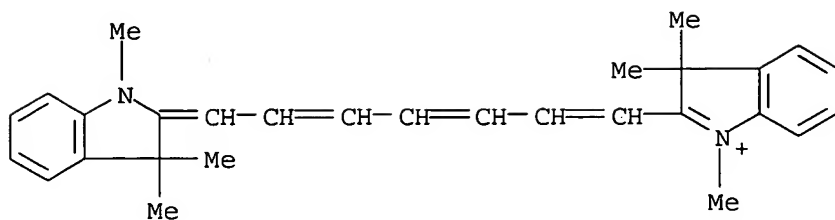


10/665,227

CM 2

CRN 47676-39-1

CMF C29 H33 N2



RN 146262-13-7 CAPLUS

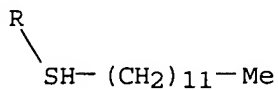
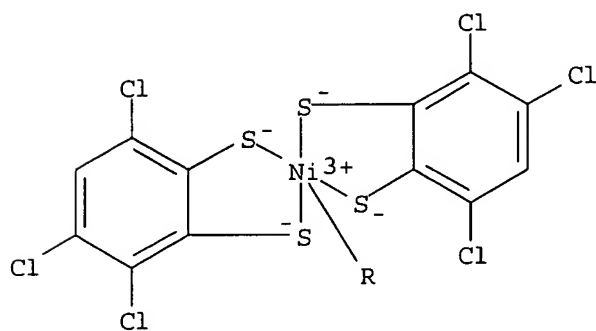
CN 3H-Indolium, 2-[7-(1,3-dihydro-1,3,3-trimethyl-2H-indol-2-ylidene)-1,3,5-heptatrienyl]-1,3,3-trimethyl-, (1-dodecanethiol)bis[3,4,6-trichloro-1,2-benzenedithiolato(2-)-S,S']nickelate(1-) (9CI) (CA INDEX NAME)

CM 1

CRN 146262-12-6

CMF C24 H28 Cl6 Ni S5

CCI CCS

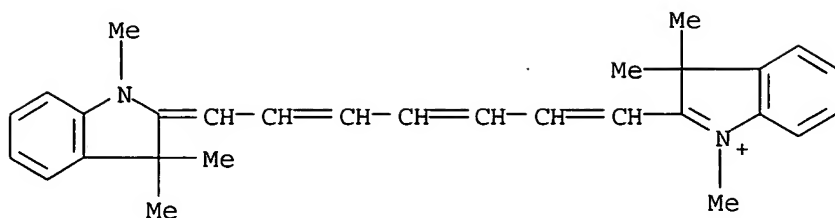


CM 2

CRN 47676-39-1

CMF C29 H33 N2

10/665,227



RN 146282-11-3 CAPLUS

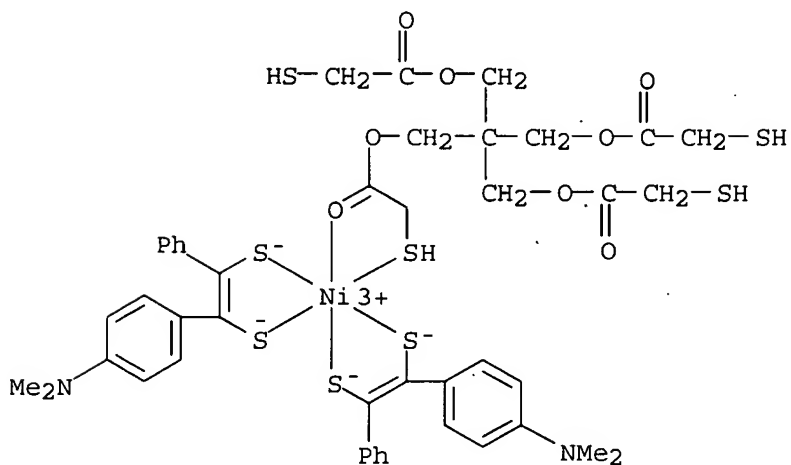
CN 3H-Indolium, 2-[7-(1,3-dihydro-1,3,3-trimethyl-2H-indol-2-ylidene)-1,3,5-heptatrienyl]-1,3,3-trimethyl-, [2,2-bis[[(mercaptoacetyl)oxy]methyl]-1,3-propanediyl bis(mercaptoacetate)]bis[1-[4-(dimethylamino)phenyl]-2-phenyl-1,2-ethenedithiolato(2-)-S,S']nickelate(1-) (9CI) (CA INDEX NAME)

CM 1

CRN 146282-10-2

CMF C45 H50 N2 Ni O8 S8

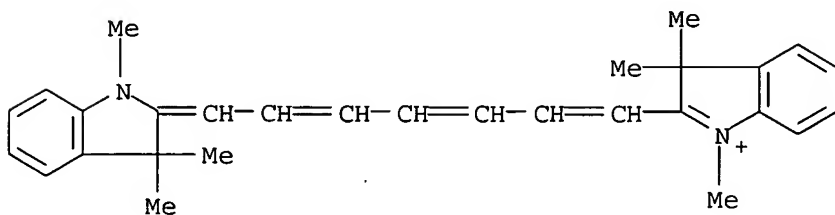
CCI CCS



CM 2

CRN 47676-39-1

CMF C29 H33 N2



RN 146282-13-5 CAPLUS

CN 3H-Indolium, 2-[7-(1,3-dihydro-1,3,3-trimethyl-2H-indol-2-ylidene)-1,3,5-heptatrienyl]-1,3,3-trimethyl-, [2,2-bis[[(mercaptoacetyl)oxy]methyl]-1,3-

10/665,227

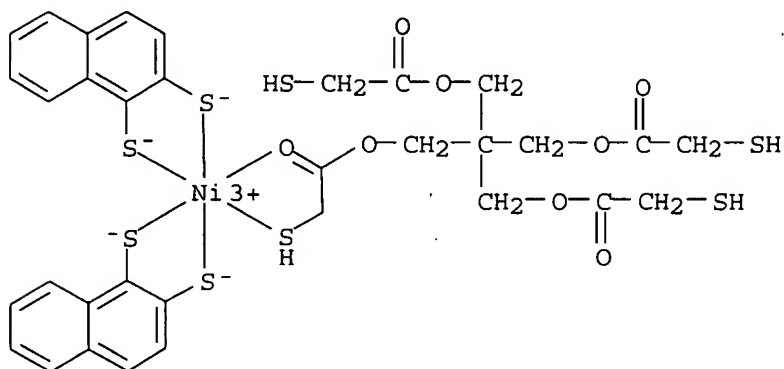
propanediyl bis(mercaptoacetate)]bis[1,2-naphthalenedithiolato(2-)-
S,S']nickelate(1-) (9CI) (CA INDEX NAME)

CM 1

CRN 146282-12-4

CMF C33 H32 Ni O8 S8

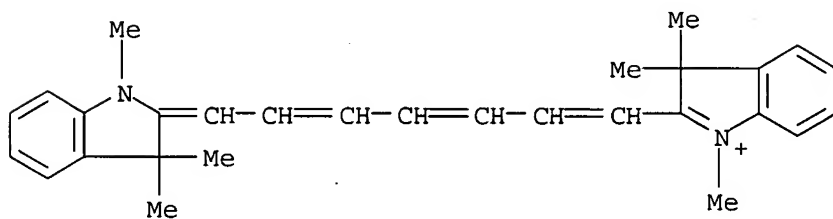
CCI CCS



CM 2

CRN 47676-39-1

CMF C29 H33 N2



RN 146282-30-6 CAPLUS

CN Benzoxazolium, 3-ethyl-2-[7-(3-ethyl-2(3H)-benzoxazolyliidene)-1,3,5-heptatrienyl]-, [2,2-bis[[(mercaptoacetyl)oxy]methyl]-1,3-propanediyl bis(mercaptoacetate)]bis[3,4,6-trichloro-1,2-benzenedithiolato(2-)-S,S']nickelate(1-) (9CI) (CA INDEX NAME)

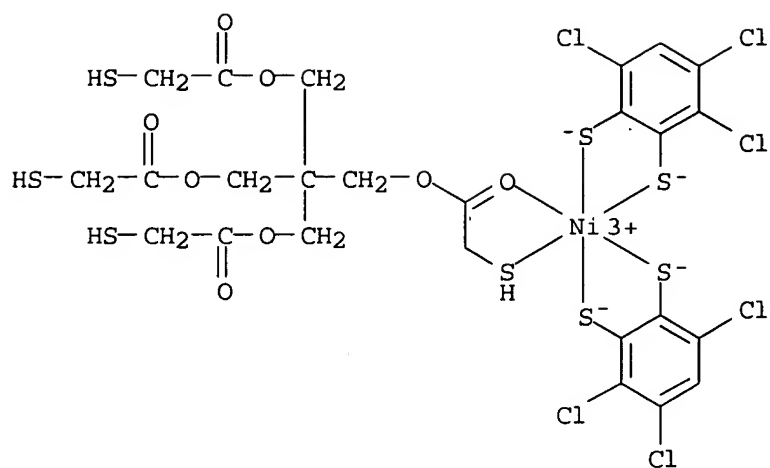
CM 1

CRN 146282-01-1

CMF C25 H22 Cl6 Ni O8 S8

CCI CCS

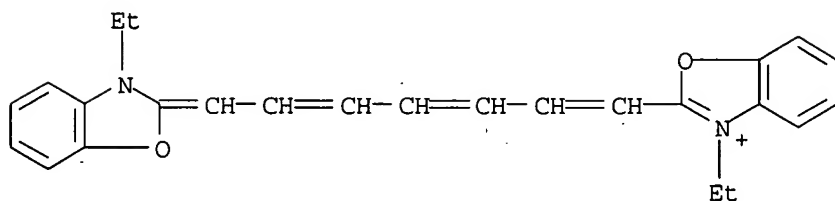
10/665,227



CM 2

CRN 37069-77-5

CMF C25 H25 N2 O2



RN 146291-34-1 CAPLUS

CN 3H-Indolium, 2-[7-(1,3-dihydro-1,3,3-trimethyl-2H-indol-2-ylidene)-1,3,5-heptatrienyl]-1,3,3-trimethyl-, [2,2'-bis[[(mercaptoacetyl)oxy]methyl]-1,3-propanediyl bis(mercaptoacetate)]bis[4-ethyl-1,2-benzenediaminato(2-)-N,N']nickelate(1-) (9CI) (CA INDEX NAME)

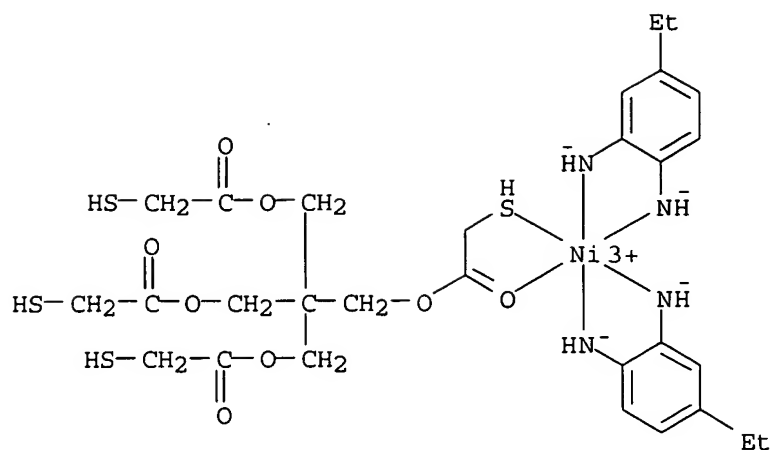
CM 1

CRN 146291-33-0

CMF C29 H40 N4 Ni O8 S4

CCI CCS

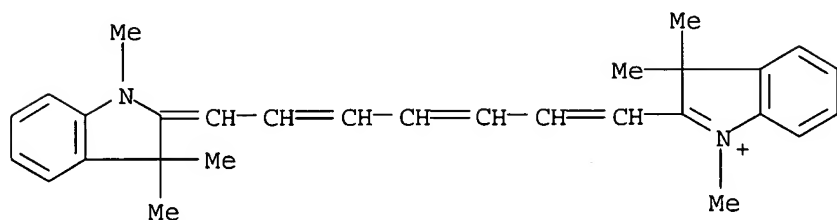
10/665,227



CM 2

CRN 47676-39-1

CMF C29 H33 N2



RN 146291-36-3 CAPLUS

CN 3H-Indolium, 2-[7-(1,3-dihydro-1,3,3-trimethyl-2H-indol-2-ylidene)-1,3,5-heptatrienyl]-1,3,3-trimethyl-, [2,2'-bis[[[(mercaptoacetyl)oxy]methyl]-1,3-propanediyl]bis(mercaptoacetate)]bis[3,5-dichloro-2-mercaptophenolato(2-)-O,S]nickelate(1-) (9CI) (CA INDEX NAME)

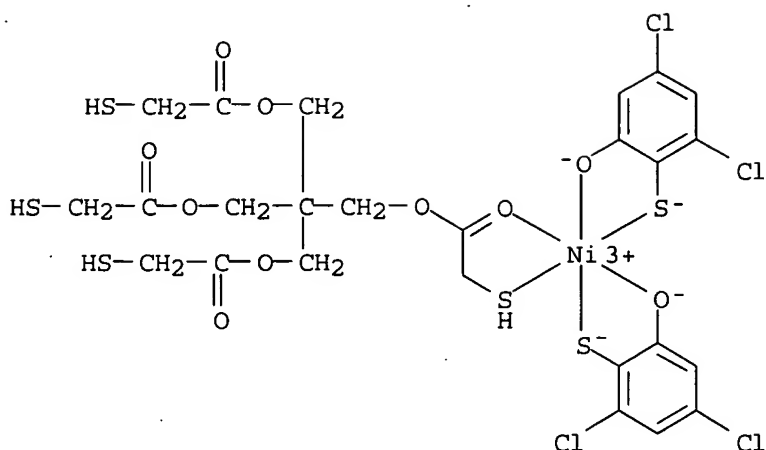
CM 1

CRN 146291-35-2

CMF C25 H24 Cl4 Ni O10 S6

CCI CCS

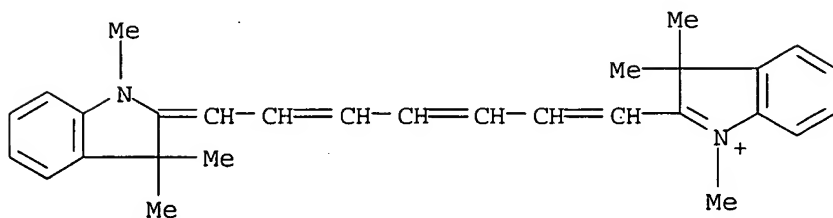
10/665,227



CM 2

CRN 47676-39-1

CMF C29 H33 N2

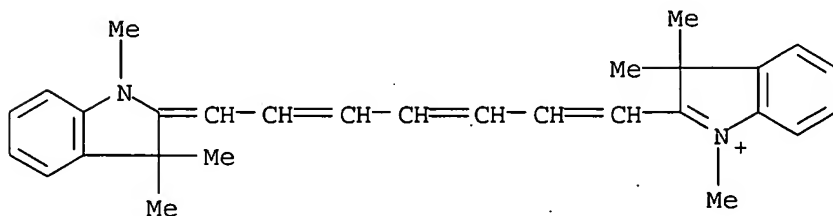


IT 19764-96-6, 1,1',3,3,3',3'-Hexamethylindolinotricarbocyanine iodide

RL: RCT (Reactant); RACT (Reactant or reagent)
(reaction of, with nickel complex)

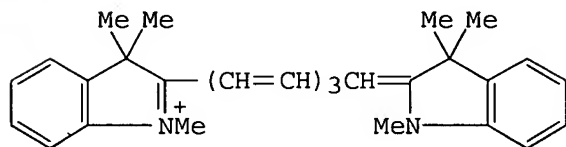
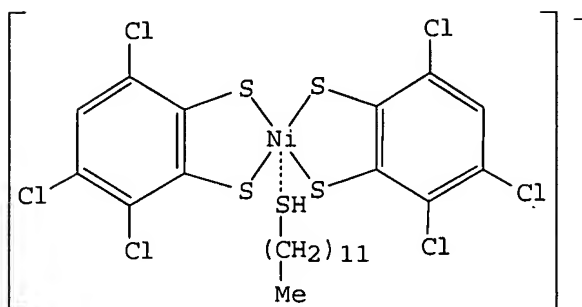
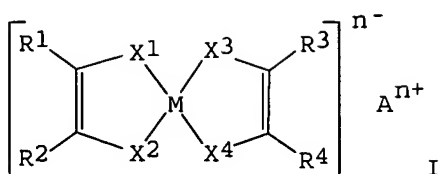
RN 19764-96-6 CAPLUS

CN 3H-Indolium, 2-[7-(1,3-dihydro-1,3,3-trimethyl-2H-indol-2-ylidene)-1,3,5-heptatrienyl]-1,3,3-trimethyl-, iodide (9CI) (CA INDEX NAME)



• I⁻

GI



II

AB The colorants are formed by coordination of organic mercaptans or disulfides with I [A = cationic dye residue; M = **transition metal** with coordination number ≥ 4 ; R1-R4 = alkyl, (un)substituted Ph, CN, or R1R2, R3R4 complete (un)substituted fused rings; X1-X4 = O, S, SH, NH, NH2; n = 0-2 (A is absent if n = 0)] and are useful in erasable optical recording media. Thus, 1 mmol each of dodecyl mercaptan and a cyanine dye complex formed by reacting equimolar amts. of NK 125 and PA 1006 were dissolved in 50 mL CHCl₃ and stirred 8 h at room temperature to give II, purified by liquid chromatog. A 10% CHCl₃ solution of novolak epoxy acrylate resin SP 4060 containing 10 phr II was spin-coated at 1.5 μm on a glass plate, dried 10 min at 80°, and cured by UV irradiation to give an erasable optical recording layer. A polyester fabric dyed with C.I. Basic Red 12 and post-treated with II showed a deepened color and improved lightfastness.

L7 ANSWER 31 OF 62 CAPLUS COPYRIGHT 2005 ACS on STN

ACCESSION NUMBER: 1992:245333 CAPLUS

DOCUMENT NUMBER: 116:245333

TITLE: Optical recording material containing cyanine dye complex

INVENTOR(S): Takazawa, Akihiro; Inagaki, Yoshio; Kobayashi, Takashi; Takahashi, Yonosuke

PATENT ASSIGNEE(S): Fuji Photo Film Co., Ltd., Japan

SOURCE: Jpn. Kokai Tokkyo Koho, 17 pp.

CODEN: JKXXAF

DOCUMENT TYPE: Patent

LANGUAGE: Japanese

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.

KIND

DATE

APPLICATION NO.

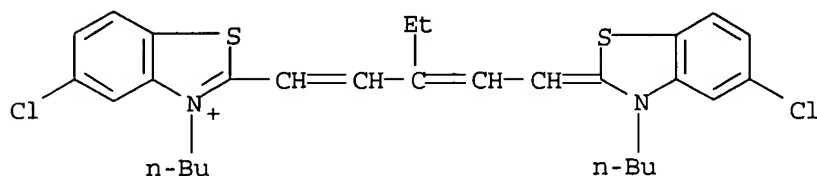
DATE

10/665,227

JP 03161394 A2 19910711 JP 1989-302993 19891121
PRIORITY APPLN. INFO.: JP 1989-302993 19891121
IT 139600-49-0P
 RL: PREP (Preparation)
 (preparation of, for laser optical recording material)
RN 139600-49-0 CAPLUS
CN Benzothiazolium, 3-butyl-2-[5-(3-butyl-5-chloro-2(3H)-benzothiazolylidene)-
 3-ethyl-1,3-pentadienyl]-5-chloro-, perchlorate (9CI) (CA INDEX NAME)

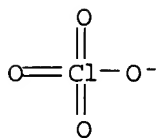
CM 1

CRN 139600-48-9
CMF C29 H33 Cl2 N2 S2



CM 2

CRN 14797-73-0
CMF Cl O4



AB In an optical recording material having a laser-writable recording layer on a substrate, the recording layer contains a cyanine dye complex Q+L:Q1(Xm-)1/m [Q, Q1 = an (aromatic ring-fused) indolenine, thiazole, oxazole, selenazole, imidazole, pyridine, thiazolopyrimidine, naphtholactam, or imidazoquinoxaline residue; L = a linkage group forming mono-, di-, tri- or tetracarbocyanine; Xm- = a m-valent **transition metal** complex anion; m = L, 2; Q1 or LQ1 may form a ring]. The optical recording material shows reflectivity $\geq 60^\circ$ for the incoming light from the side of the substrate. It also shows excellent durability.

L7 ANSWER 36 OF 62 CAPLUS COPYRIGHT 2005 ACS on STN
ACCESSION NUMBER: 1989:487548 CAPLUS
DOCUMENT NUMBER: 111:87548
TITLE: Optical recording material containing nickel complex
 as dye-stabilizing agent
INVENTOR(S): Maruyama, Katsuji; Sato, Tsutomu
PATENT ASSIGNEE(S): Ricoh Co., Ltd., Japan
SOURCE: Jpn. Kokai Tokkyo Koho, 5 pp.
 CODEN: JKXXAF
DOCUMENT TYPE: Patent
LANGUAGE: Japanese
FAMILY ACC. NUM. COUNT: 1

10/665,227

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 63288785	A2	19881125	JP 1987-122799	19870520
PRIORITY APPLN. INFO.:			JP 1987-122799	19870520

IT 16595-48-5

RL: TEM (Technical or engineered material use); USES (Uses)
(optical recording material containing, **transition metal**
complex stabilizer for, NK-2421)

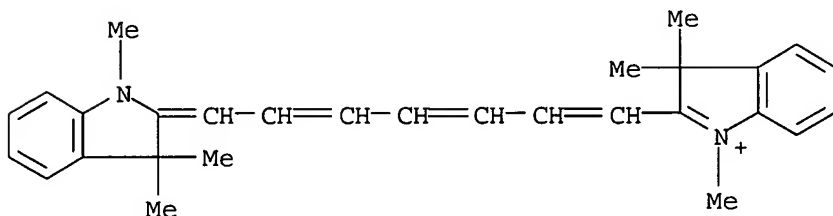
RN 16595-48-5 CAPLUS

CN 3H-Indolium, 2-[7-(1,3-dihydro-1,3,3-trimethyl-2H-indol-2-ylidene)-1,3,5-heptatrienyl]-1,3,3-trimethyl-, perchlorate (9CI) (CA INDEX NAME)

CM 1

CRN 47676-39-1

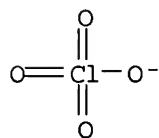
CMF C29 H33 N2



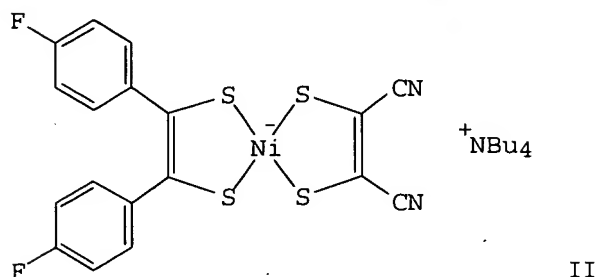
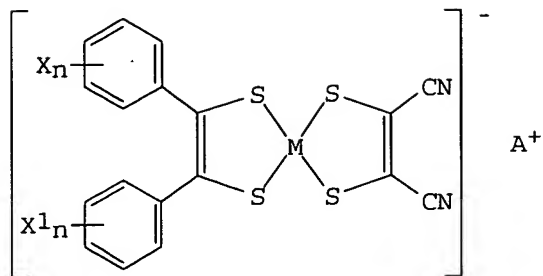
CM 2

CRN 14797-73-0

CMF Cl O4



GI



AB An optical recording material has a recording layer which contains a light-absorbing and reflecting dye and a **transition metal** complex I (X, X1 = F, Cl, Br; M = Ni, Pd, Pt; n = 1, 2; A+ = cation). The material has high stability toward light in reading out of information. Thus, a mixture of NK-2421 (a cyanine dye) and a stabilizer II (1:0.15 in weight) dissolved in dichloroethane was coated on a glass substrate and dried to form a 600 Å-thick recording layer. The layer was subjected to a lightfastness test by exposure to 54,000-lx light from a 500-W W-lamp to show a rate of decrease in the dye optical d. of 1/4 that occurring for a recording layer not containing the stabilizer.

L7 ANSWER 37 OF 62 CAPLUS COPYRIGHT 2005 ACS on STN

ACCESSION NUMBER: 1989:448208 CAPLUS

DOCUMENT NUMBER: 111:48208

TITLE: Heat mode optical recording medium

INVENTOR(S): Nanba, Noriyoshi; Asami, Shigeru; Aoi, Toshiki; Takahashi, Kazuo; Kuroiwa, Akihiko

PATENT ASSIGNEE(S): TDK Corp., Japan

SOURCE: Jpn. Kokai Tokkyo Koho, 26 pp.

CODEN: JKXXAF

DOCUMENT TYPE: Patent

LANGUAGE: Japanese

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 61213193	A2	19860922	JP 1985-54013	19850318
JP 05022595	B4	19930330		

PRIORITY APPLN. INFO.: JP 1985-54013 19850318

IT 16595-48-5

RL: USES (Uses)

(indolenine-type cyanine dye, for optical recording materials)

RN 16595-48-5 CAPLUS

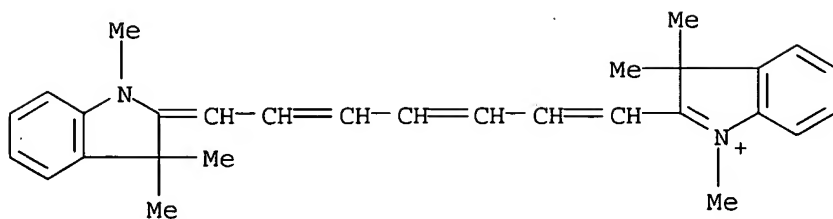
CN 3H-Indolium, 2-[7-(1,3-dihydro-1,3,3-trimethyl-2H-indol-2-ylidene)-1,3,5-heptatrienyl]-1,3,3-trimethyl-, perchlorate (9CI) (CA INDEX NAME)

10/665,227

CM 1

CRN 47676-39-1

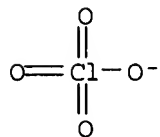
CMF C29 H33 N2



CM 2

CRN 14797-73-0

CMF Cl O4



IT 118066-34-5P

RL: SPN (Synthetic preparation); PREP (Preparation)

(preparation and use of, as light-stable optical recording dye)

RN 118066-34-5 CAPLUS

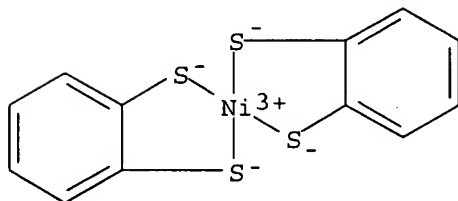
CN 3H-Indolium, 2-[7-(1,3-dihydro-1,3,3-trimethyl-2H-indol-2-ylidene)-1,3,5-heptatrienyl]-1,3,3-trimethyl-, bis[trichloro-1,2-benzenedithiolato(2-)-S,S']nickelate(1-) (9CI) (CA INDEX NAME)

CM 1

CRN 118066-33-4

CMF C12 H2 Cl6 Ni S4

CCI CCS, IDS

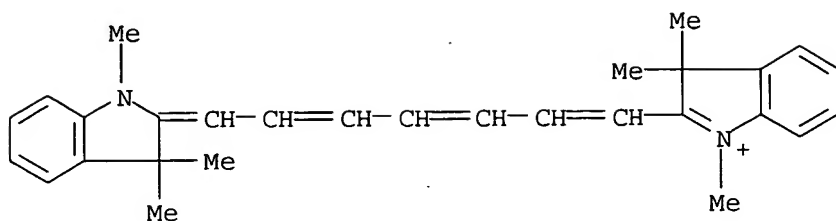


6 (D1-C1)

CM 2

10/665,227

CRN 47676-39-1
CMF C29 H33 N2



IT 121184-96-1P

RL: PREP (Preparation)

(preparation of, as light stable dye for optical recording)

RN 121184-96-1 CAPLUS

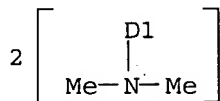
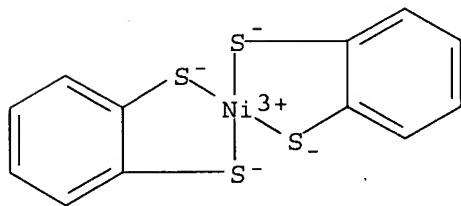
CN 3H-Indolium, 2-[7-(1,3-dihydro-1,3,3-trimethyl-2H-indol-2-ylidene)-1,3,5-heptatrienyl]-1,3,3-trimethyl-, bis[(dimethylamino)-1,2-benzenedithiolato(2-)-S,S']nickelate(1-) (9CI) (CA INDEX NAME)

CM 1

CRN 121184-95-0

CMF C16 H18 N2 Ni S4

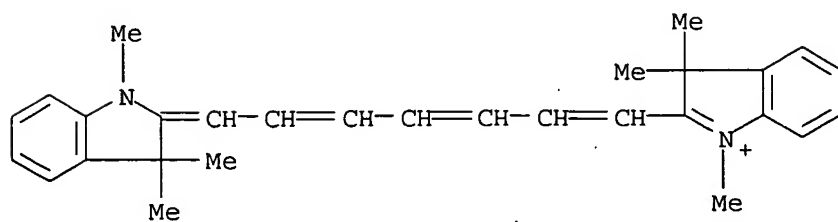
CCI CCS, IDS



CM 2

CRN 47676-39-1

CMF C29 H33 N2



10/665,227

AB The title optical recording medium possesses on a support a recording layer containing a cyanine dye stabilized toward light and based on a salt obtained from an indolenine-type cyanine dye cation and a bisphenyldithiol **transition metal** complex anion, the complex anion being present as ≥ 2 isomers. An addnl. indolenine-type cyanine dye may also be incorporated in the recording layer. The above salt shows good solubility, prevents crystallization in the recording layer, allows good film formation, and yields a recording layer which gives a good S/N ratio, and good stability to readout light.

L7 ANSWER 41 OF 62 CAPLUS COPYRIGHT 2005 ACS on STN

ACCESSION NUMBER: 1986:600578 CAPLUS

DOCUMENT NUMBER: 105:200578

TITLE: Optical recording materials

INVENTOR(S): Nanba, Noriyoshi; Asami, Shigeru; Aoi, Toshiki; Takahashi, Kazuo; Kuroiwa, Akihiko

PATENT ASSIGNEE(S): TDK Corp., Japan

SOURCE: Jpn. Kokai Tokkyo Koho, 31 pp.

CODEN: JKXXAF

DOCUMENT TYPE: Patent

LANGUAGE: Japanese

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 61016894	A2	19860124	JP 1984-138694	19840704
PRIORITY APPLN. INFO.:			JP 1984-138694	19840704

IT 16595-48-5 19764-96-6 64285-35-4

104569-73-5D, complex with nickel 104569-74-6D, complex with nickel

RL: TEM (Technical or engineered material use); USES (Uses) (laser recording materials containing)

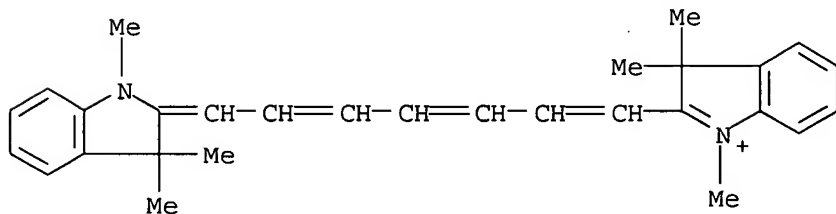
RN 16595-48-5 CAPLUS

CN 3H-Indolium, 2-[7-(1,3-dihydro-1,3,3-trimethyl-2H-indol-2-ylidene)-1,3,5-heptatrienyl]-1,3,3-trimethyl-, perchlorate (9CI) (CA INDEX NAME)

CM 1

CRN 47676-39-1

CMF C29 H33 N2

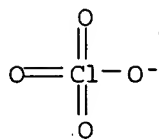


CM 2

CRN 14797-73-0

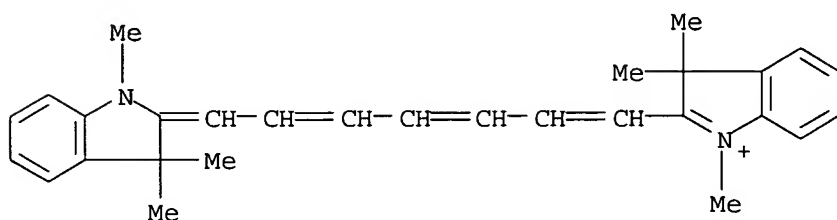
CMF Cl O4

10/665,227



RN 19764-96-6 CAPLUS

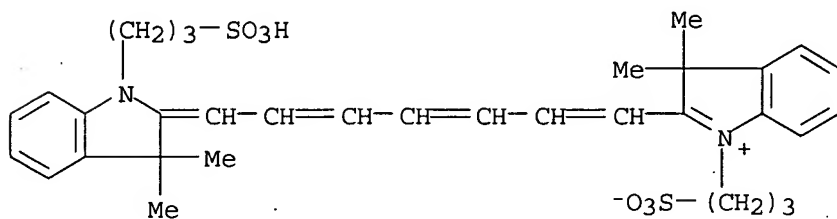
CN 3H-Indolium, 2-[7-(1,3-dihydro-1,3,3-trimethyl-2H-indol-2-ylidene)-1,3,5-heptatrienyl]-1,3,3-trimethyl-, iodide (9CI) (CA INDEX NAME)



● I⁻

RN 64285-35-4 CAPLUS

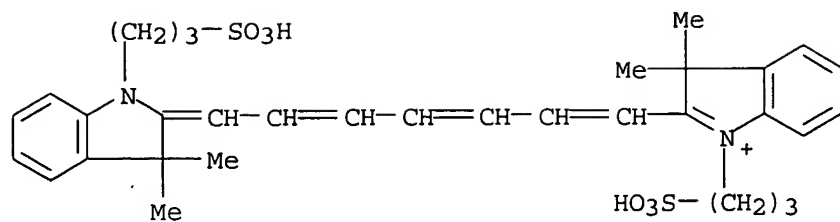
CN 3H-Indolium, 2-[7-[1,3-dihydro-3,3-dimethyl-1-(3-sulfopropyl)-2H-indol-2-ylidene]-1,3,5-heptatrienyl]-3,3-dimethyl-1-(3-sulfopropyl)-, inner salt, sodium salt (9CI) (CA INDEX NAME)



● Na

RN 104569-73-5 CAPLUS

CN 3H-Indolium, 2-[7-[1,3-dihydro-3,3-dimethyl-1-(3-sulfopropyl)-2H-indol-2-ylidene]-1,3,5-heptatrienyl]-3,3-dimethyl-1-(3-sulfopropyl)-, iodide, disodium salt (9CI) (CA INDEX NAME)

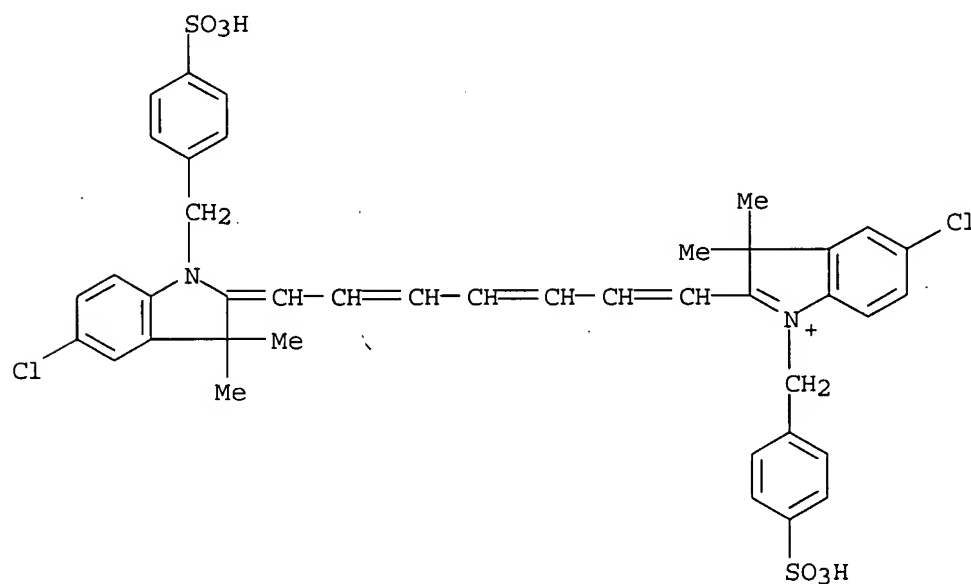
● I^-

● 2 Na

RN 104569-74-6 CAPLUS

CN 3H-Indolium, 5-chloro-2-[7-[5-chloro-1,3-dihydro-3,3-dimethyl-1-[(4-sulfophenyl)methyl]-2H-indol-2-ylidene]-1,3,5-heptatrienyl]-3,3-dimethyl-1-[(4-sulfophenyl)methyl]-, iodide, disodium salt (9CI) (CA INDEX NAME)

PAGE 1-A

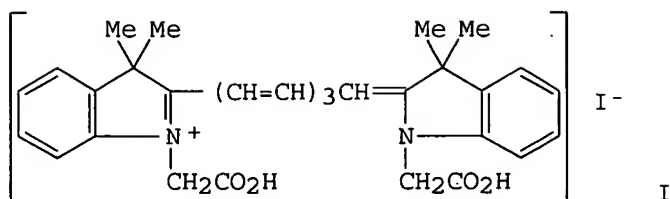


PAGE 2-A

● I^-

● 2 Na

GI



AB The claimed optical recording materials contain reaction products of **transition metal** salts with indolenine derivative type cyanine dyes having SO₃H, CO₂H, or their salt groups. The recording materials may also contain quenchers. Thus, an acrylic resin support coated with a colloidal silica subbing layer was coated with a composition containing reaction products of NiCl₂ and I to give a high-quality direct-read-after-write laser recording disk.

L7 ANSWER 42 OF 62 CAPLUS COPYRIGHT 2005 ACS on STN

ACCESSION NUMBER: 1986:600577 CAPLUS

DOCUMENT NUMBER: 105:200577

TITLE: Optical recording materials

INVENTOR(S): Nanba, Noriyoshi; Asami, Shigeru; Aoi, Toshiki; Takahashi, Kazuo; Kuroiwa, Akihiko

PATENT ASSIGNEE(S): TDK Corp., Japan

SOURCE: Jpn. Kokai Tokkyo Koho, 33 pp.

CODEN: JKXXAF

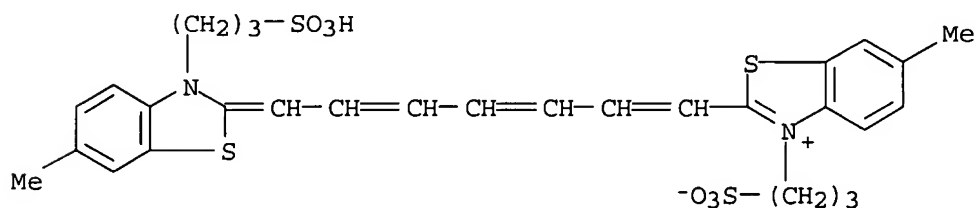
DOCUMENT TYPE: Patent

LANGUAGE: Japanese

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

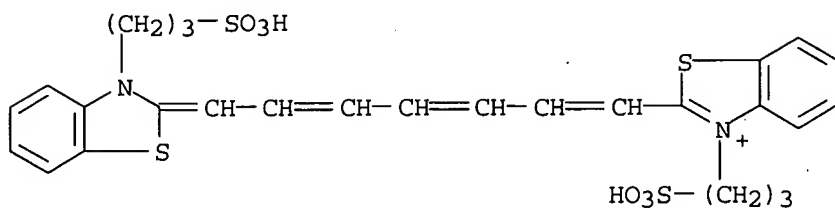
PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 61016891	A2	19860124	JP 1984-137692	19840703
PRIORITY APPLN. INFO.:			JP 1984-137692	19840703
IT 104359-58-2D, complexes with nickel dichloride and ethylene glycol				
104359-59-3D, complexes with nickel dichloride and ethylene glycol				
RL: TEM (Technical or engineered material use); USES (Uses)				
(laser recording materials containing)				
RN 104359-58-2 CAPLUS				
CN Benzothiazolium, 6-methyl-2-[7-[6-methyl-3-(3-sulfopropyl)-2(3H)-benzothiazolylidene]-1,3,5-heptatrienyl]-3-(3-sulfopropyl)-, inner salt, sodium salt (9CI) (CA INDEX NAME)				



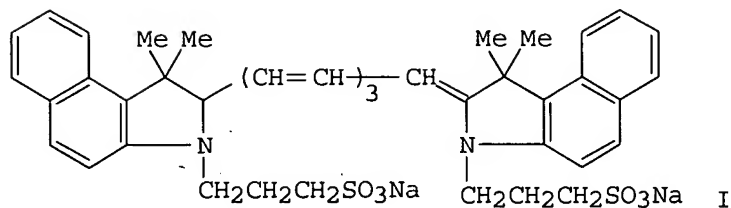
10/665,227

RN 104359-59-3 CAPLUS

CN Benzothiazolium, 3-(3-sulfopropyl)-2-[7-[3-(3-sulfopropyl)-2(3H)-benzothiazolylidene]-1,3,5-heptatrienyl]-, iodide, disodium salt (9CI)
(CA INDEX NAME)



GI



AB The claimed optical recording materials contain reaction products of **transition metal** salts with cyanine dyes having SO₃H, CO₂H, or their salt groups. The recording materials may also contain quenchers. Thus, an acrylic resin support having a colloidal silica subbing layer was coated with a composition containing a reaction product of NiCl₂ and I to give a high-quality direct-read-after-write type laser recording disk.

L7 ANSWER 56 OF 62 CAPLUS COPYRIGHT 2005 ACS on STN

ACCESSION NUMBER: 1985:195282 CAPLUS

DOCUMENT NUMBER: 102:195282

TITLE: Optical recording materials

PATENT ASSIGNEE(S): TDK Corp., Japan

SOURCE: Jpn. Kokai Tokkyo Koho, 16 pp.

CODEN: JKXXAF

DOCUMENT TYPE: Patent

LANGUAGE: Japanese

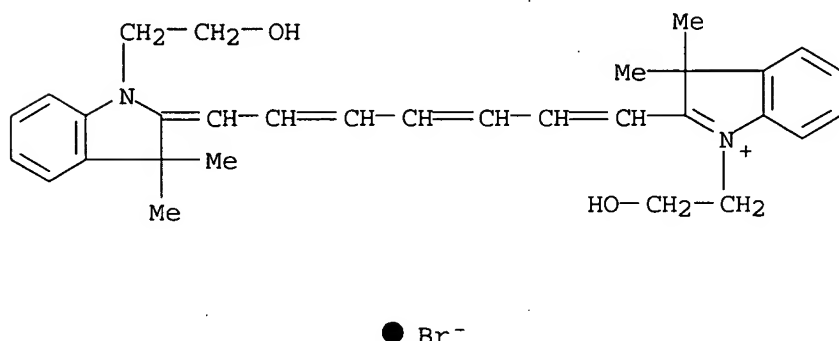
FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

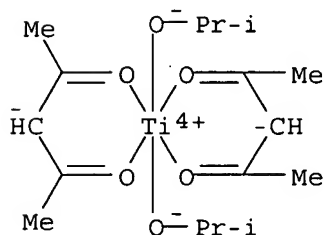
10/665,227

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 60019587	A2	19850131	JP 1983-127075	19830713

PRIORITY APPLN. INFO.:
 IT 95974-79-1
 RL: USES (Uses)
 (laser recording materials containing thiotungstate type singlet oxygen quenchers and)
 RN 95974-79-1 CAPLUS
 CN Titanium, bis(2,4-pentanedionato-0,0')bis(2-propanolato)-, polymer with 2-[7-[1,3-dihydro-3-(2-hydroxyethyl)-1,1-dimethyl-2H-benz[e]indol-2-ylidene]-1,3,5-heptatrienyl]-3-(2-hydroxyethyl)-1,1-dimethyl-1H-benz[e]indolium perchlorate (salt) and 2-[7-[1,3-dihydro-1-(2-hydroxyethyl)-3,3-dimethyl-2H-indol-2-ylidene]-1,3,5-heptatrienyl]-1-(2-hydroxyethyl)-3,3-dimethyl-3H-indolium bromide (9CI) (CA INDEX NAME)
 CM 1
 CRN 95974-78-0
 CMF C31 H37 N2 O2 . Br



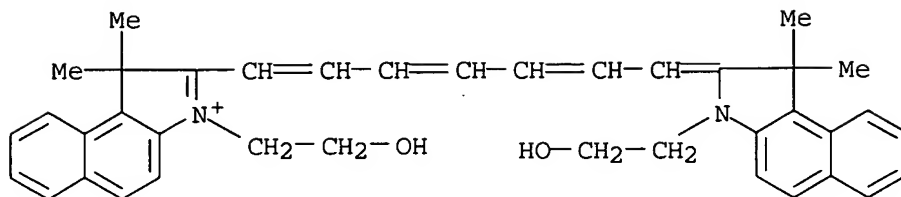
CM 2
 CRN 17927-72-9
 CMF C16 H28 O6 Ti
 CCI CCS



CM 3
 CRN 95144-19-7
 CMF C39 H41 N2 O2 . Cl O4
 CM 4

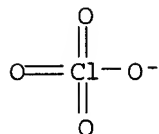
10/665,227

CRN 95144-18-6
CMF C39 H41 N2 O2

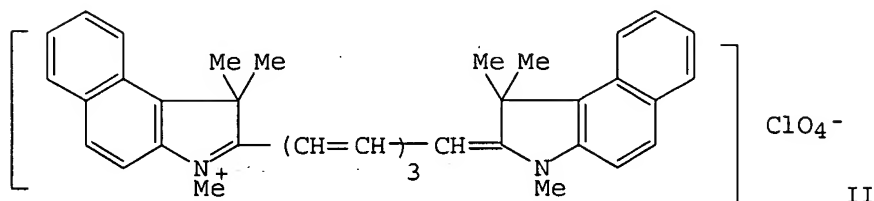
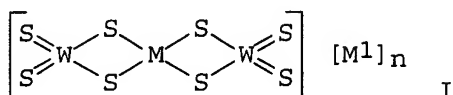


CM 5

CRN 14797-73-0
CMF C1 O4



GI



AB Optical recording materials have a recording medium composed of a cyanine dye, a singlet O quencher I (M = **transition metal**; M1 = cation; n = 1, 2), and a resin (optional). Thus, II, nitrocellulose, and I (M = Ni; M1 = Bu4N+; n = 2) were mixed in a solvent and coated on an acrylic disk to give a laser recording disk with high sensitivity, high readout signal/noise ratio, and excellent durability.

L7 ANSWER 57 OF 62 CAPLUS COPYRIGHT 2005 ACS on STN
ACCESSION NUMBER: 1985:158222 CAPLUS
DOCUMENT NUMBER: 102:158222
TITLE: Optical recording materials
PATENT ASSIGNEE(S): TDK Corp., Japan
SOURCE: Jpn. Kokai Tokkyo Koho, 16 pp.
CODEN: JKXXAF
DOCUMENT TYPE: Patent
LANGUAGE: Japanese

10/665,227

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 60018387	A2	19850130	JP 1983-125654	19830711
JP 04075143	B4	19921130		
PRIORITY APPLN. INFO.:			JP 1983-125654	19830711

IT 95974-79-1

RL: USES (Uses)

(laser recording disks containing singlet oxygen quencher and)

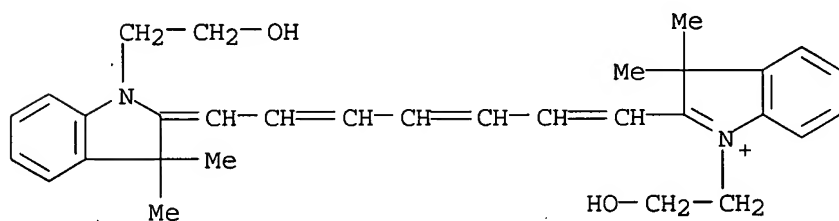
RN 95974-79-1 CAPLUS

CN Titanium, bis(2,4-pentanedionato-0,0')bis(2-propanolato)-, polymer with 2-[7-[1,3-dihydro-3-(2-hydroxyethyl)-1,1-dimethyl-2H-benz[e]indol-2-ylidene]-1,3,5-heptatrienyl]-3-(2-hydroxyethyl)-1,1-dimethyl-1H-benz[e]indolium perchlorate (salt) and 2-[7-[1,3-dihydro-1-(2-hydroxyethyl)-3,3-dimethyl-2H-indol-2-ylidene]-1,3,5-heptatrienyl]-1-(2-hydroxyethyl)-3,3-dimethyl-3H-indolium bromide (9CI) (CA INDEX NAME)

CM 1

CRN 95974-78-0

CMF C31 H37 N2 O2 . Br



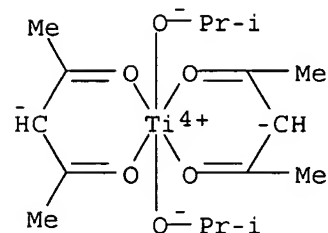
● Br⁻

CM 2

CRN 17927-72-9

CMF C16 H28 O6 Ti

CCI CCS



CM 3

CRN 95144-19-7

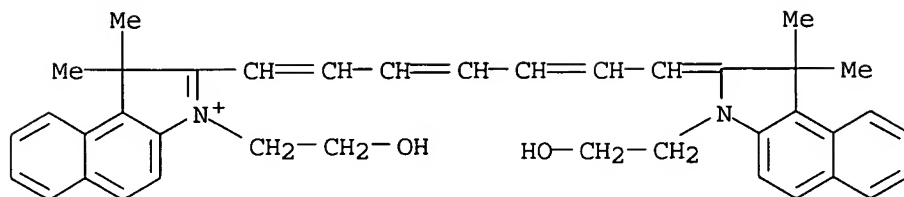
10/665,227

CMF C39 H41 N2 O2 . Cl O4

CM 4

CRN 95144-18-6

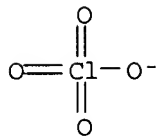
CMF C39 H41 N2 O2



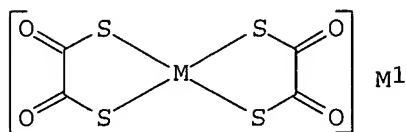
CM 5

CRN 14797-73-0

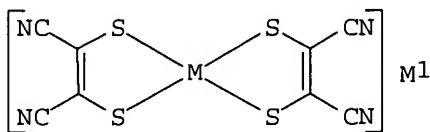
CMF Cl O4



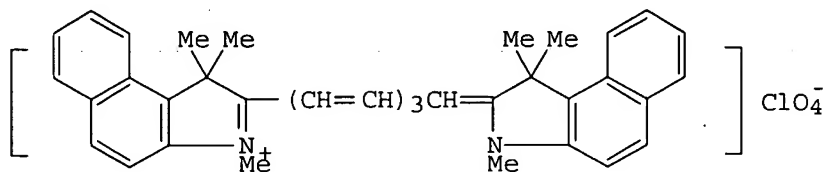
GI



I



II



III

AB Laser recording materials have recording layer containing a cyanine dye, I or II (M = **transition metal**; M1 = cation), and a resin (optional). The addition of I or II inhibits degradation of the cyanine dye by repeated readout. Thus, an acrylic disk was coated with a composition containing

III, nitrocellulose and I (M = Ni; M1 = 2K) to give a laser recording disk which showed good sensitivity, high readout signal/noise ratio, and good durability (after recording).

L7 ANSWER 58 OF 62 CAPLUS COPYRIGHT 2005 ACS on STN

ACCESSION NUMBER: 1985:87736 CAPLUS

DOCUMENT NUMBER: 102:87736

TITLE: Laser recording materials

10/665,227

PATENT ASSIGNEE(S): TDK Corp., Japan
SOURCE: Jpn. Kokai Tokkyo Koho, 19 pp.
CODEN: JKXXAF
DOCUMENT TYPE: Patent
LANGUAGE: Japanese
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 59178295	A2	19841009	JP 1983-54950	19830329
PRIORITY APPLN. INFO.:			JP 1983-54950	19830329

IT 16595-48-5 94793-18-7

RL: TEM (Technical or engineered material use); USES (Uses)
(laser recording materials containing)

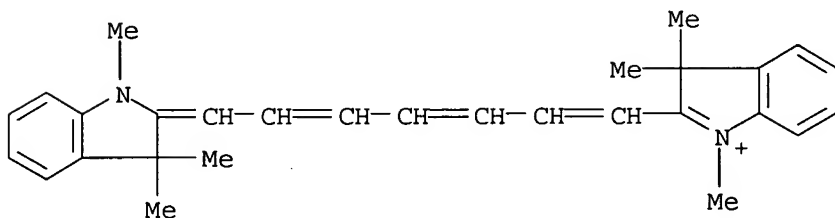
RN 16595-48-5 CAPLUS

CN 3H-Indolium, 2-[7-(1,3-dihydro-1,3,3-trimethyl-2H-indol-2-ylidene)-1,3,5-heptatrienyl]-1,3,3-trimethyl-, perchlorate (9CI) (CA INDEX NAME)

CM 1

CRN 47676-39-1

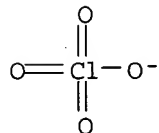
CMF C29 H33 N2



CM 2

CRN 14797-73-0

CMF Cl O4



RN 94793-18-7 CAPLUS

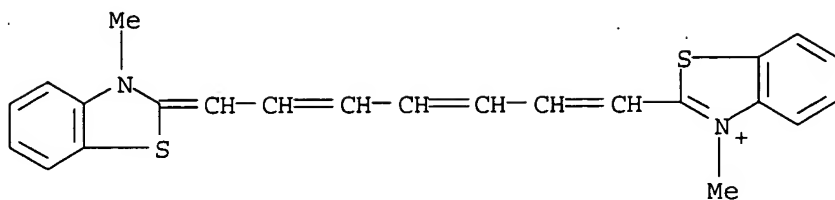
CN Benzothiazolium, 3-methyl-2-[7-(3-methyl-2(3H)-benzothiazolylydene)-1,3,5-heptatrienyl]-, perchlorate (9CI) (CA INDEX NAME)

CM 1

CRN 54123-58-9

CMF C23 H21 N2 S2

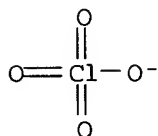
10/665,227



CM 2

CRN 14797-73-0

CMF Cl O4



AB A laser recording material with improved storage stability, heat resistance, and reading signal-to-noise ratio is obtained by forming on a substrate a recording layer containing a xylene-type polymer (e.g., HCHO-m-xylene or HCHO-mesitylene polymer) and a dye (e.g., a cyanine dye). A quencher (e.g., a **transition metal** chelate compound) may also be incorporated in the above recording layer.

L7 ANSWER 59 OF 62 CAPLUS COPYRIGHT 2005 ACS on STN

ACCESSION NUMBER: 1985:70323 CAPLUS

DOCUMENT NUMBER: 102:70323

TITLE: Optical recording materials

PATENT ASSIGNEE(S): TDK Corp., Japan

SOURCE: Jpn. Kokai Tokkyo Koho, 22 pp.

CODEN: JKXXAF

DOCUMENT TYPE: Patent

LANGUAGE: Japanese

FAMILY ACC. NUM. COUNT: 13

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 59083695	A2	19840515	JP 1982-193685	19821102
JP 06030961	B4	19940427		
US 5741623	A	19980421	US 1992-990979	19921209
US 5512416	A	19960430	US 1995-482165	19950606
PRIORITY APPLN. INFO.:			JP 1982-134397	A 19820730
			JP 1982-134170	A 19820731
			JP 1982-166832	A 19820925
			JP 1982-168048	A 19820927
			JP 1982-177776	A 19821011
			JP 1982-182589	A 19821018
			JP 1982-192879	A 19821101
			JP 1982-193685	A 19821102
			JP 1982-234245	A 19821228
			JP 1982-233157	A 19821229
			JP 1982-232241	A 19821230
			JP 1982-232198	A 19821231
			JP 1982-232199	A 19821231

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US 1983-518359	B2 19830729
US 1986-895860	B1 19860812
US 1988-143312	B1 19880106
US 1992-918924	B1 19920722

IT 22268-66-2 93911-28-5

RL: TEM (Technical or engineered material use); USES (Uses)
(laser recording materials containing, heat-mode)

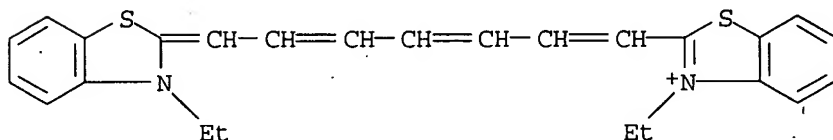
RN 22268-66-2 CAPLUS

CN Benzothiazolium, 3-ethyl-2-[7-(3-ethyl-2(3H)-benzothiazolylidene)-1,3,5-heptatrienyl]-, perchlorate (9CI) (CA INDEX NAME)

CM 1

CRN 23178-68-9

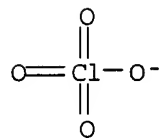
CMF C25 H25 N2 S2



CM 2

CRN 14797-73-0

CMF Cl O4



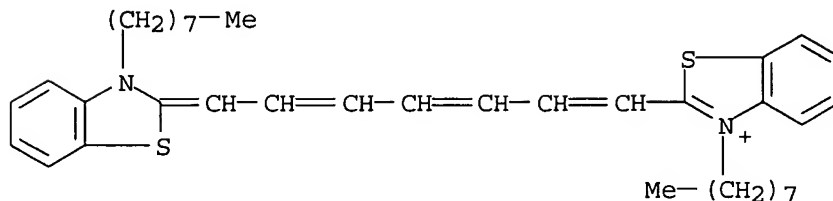
RN 93911-28-5 CAPLUS

CN Benzothiazolium, 3-octyl-2-[7-(3-octyl-2(3H)-benzothiazolylidene)-1,3,5-heptatrienyl]-, perchlorate (9CI) (CA INDEX NAME)

CM 1

CRN 93911-27-4

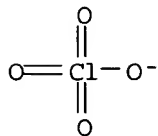
CMF C37 H49 N2 S2



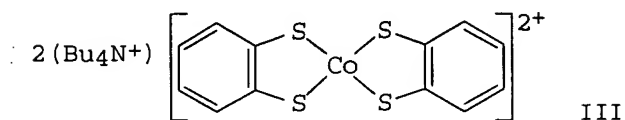
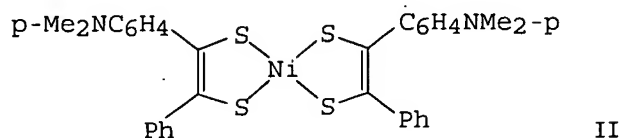
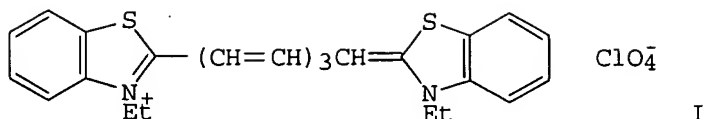
CM 2

CRN 14797-73-0

CMF Cl O4



GI



AB Optical recording materials are described which contain a dye and ≥ 2 singlet O quenchers in the recording layer. The recording layer may also contain a self-oxidizing or thermoplastic resin. The dye is preferably selected from carbocyanine dyes whereas the singlet O quenchers are selected from chelated **transition metal** compds. The recording materials show excellent storage stability and good sensitivity toward semiconductor lasers. Thus, an acrylic resin disk was coated with a composition containing nitrocellulose, I, II, and III [I/nitrocellulose = 0.5 (by weight), (II + III)/I = 0.2 (mol ratio), III/II = 0.5 (mol ratio)] to give a laser recording material which showed good sensitivity toward an AlGaAs-GaAs semiconductor laser, a high signal-to-noise ratio (readout), and good storage stability.

L7 ANSWER 60 OF 62 CAPLUS COPYRIGHT 2005 ACS on STN

ACCESSION NUMBER: 1977:18342 CAPLUS

DOCUMENT NUMBER: 86:18342

TITLE: Reaction of bases of polymethine dyes with **transition metal** salts

AUTHOR(S): Voevodskaya, M. V.; Kuz'min, V. A.; Khudyakov, I. V.

CORPORATE SOURCE: Inst. Khim. Fiz., Moscow, USSR

SOURCE: Izvestiya Akademii Nauk SSSR, Seriya Khimicheskaya (1976), (9), 1991-4

CODEN: IASKA6; ISSN: 0002-3353

DOCUMENT TYPE: Journal

LANGUAGE: Russian

IT 3595-74-2D, **transition metal** complexes

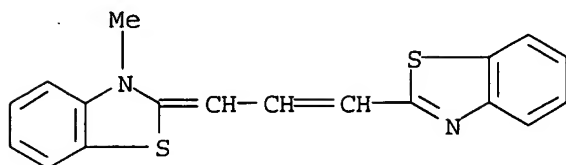
RL: USES (Uses)

(absorption maximum of)

RN 3595-74-2 CAPLUS

10/665,227

CN Benzothiazole, 2-[3-(2-benzothiazolyl)-2-propenylidene]-2,3-dihydro-3-methyl- (9CI) (CA INDEX NAME)



GI For diagram(s), see printed CA Issue.

AB Complex formation between **transition metals** and carbocyanine dye bases I (R = Me, Et; A = pyridine, quinoline, benzothiazole residue), some styryl analogs, and II [61109-41-9] shifts the absorption maximum of the bases to greater wavelength by 80-140 nm. The resulting spectra closely resemble those of the protonated forms of the dye bases, which suggests that coordination to the metal is via the basic N of the ligand rather than the π -bonds of the cyanine chain. The nature of the metal (Co, Cu, Ni, Cr, Cd) has little effect on the spectra of the complexes if formed, but with some of the bases not all of the metals are effective in complex formation. The equilibrium consts. for complex formation determined for I (R = Me, A = quinoline residue) [3595-49-1] were .apprx.2 orders of magnitude greater for Cu(NO₃)₂ and Cr(NO₃)₃ than for the other metal nitrates. The metal complexes are known to show high-temperature supercond.

L7 ANSWER 61 OF 62 CAPLUS COPYRIGHT 2005 ACS on STN

ACCESSION NUMBER: 1975:162981 CAPLUS

DOCUMENT NUMBER: 82:162981

TITLE: Photographic recording material

INVENTOR(S): Ohkubo, Kinji; Noguchi, Junpei; Ohmura, Kunioki; Hinata, Masanao

PATENT ASSIGNEE(S): Fuji Photo Film Co., Ltd.

SOURCE: Ger. Offen., 27 pp. Division of Ger. Offen. 2,063,669 (CA 75: 114816z).

CODEN: GWXXBX

DOCUMENT TYPE: Patent

LANGUAGE: German

FAMILY ACC. NUM. COUNT: 2

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
-----	---	-----	-----	-----
DE 2065539	A1	19741205	DE 1970-2065539	19701224
DE 2065539	B2	19800430		
DE 2065539	C3	19810122		
JP 49013021	B4	19740328	JP 1969-104009	19691224
JP 48042172	B4	19731211	JP 1970-2819	19700109
GB 1330699	A	19730919	GB 1970-61278	19701223
CA 983763	A1	19760217	CA 1970-101354	19701223
FR 2072062	A5	19710924	FR 1970-46630	19701224
FR 2072062	B1	19730202		
US 3890154	A	19750617	US 1973-344401	19730323
PRIORITY APPLN. INFO.:			JP 1969-104009	A 19691224
			JP 1970-2819	A 19700109
			US 1970-101233	A2 19701224

IT 19163-98-5 33958-29-1 34270-51-4

52686-21-2 55205-68-0 55205-69-1

RL: USES (Uses)

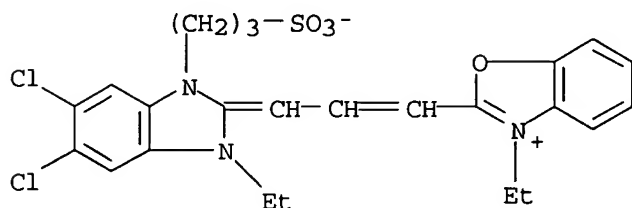
(photographic emulsions containing **transition metal**

10/665,227

complexes and, for high green sensitivity for flash exposure)

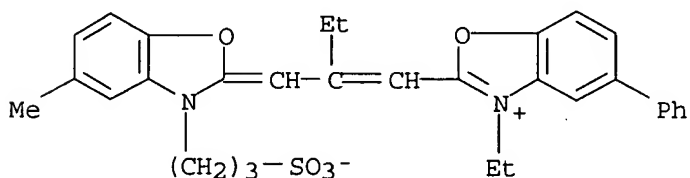
RN 19163-98-5 CAPLUS

CN Benzoxazolium, 2-[3-[5,6-dichloro-1-ethyl-1,3-dihydro-3-(3-sulfopropyl)-2H-benzimidazol-2-ylidene]-1-propenyl]-3-ethyl-, inner salt (9CI) (CA INDEX NAME)



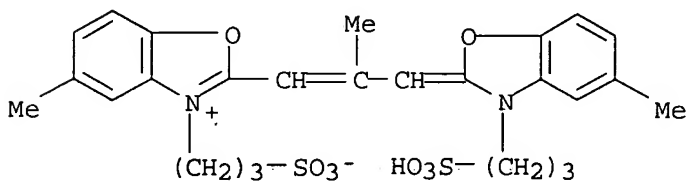
RN 33958-29-1 CAPLUS

CN Benzoxazolium, 3-ethyl-2-[2-[[5-methyl-3-(3-sulfopropyl)-2(3H)-benzoxazolylidene]methyl]-1-butenyl]-5-phenyl-, inner salt (9CI) (CA INDEX NAME)



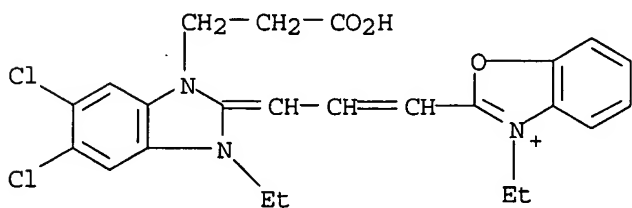
RN 34270-51-4 CAPLUS

CN Benzoxazolium, 5-methyl-2-[2-methyl-3-[5-methyl-3-(3-sulfopropyl)-2(3H)-benzoxazolylidene]-1-propenyl]-3-(3-sulfopropyl)-, inner salt (9CI) (CA INDEX NAME)



RN 52686-21-2 CAPLUS

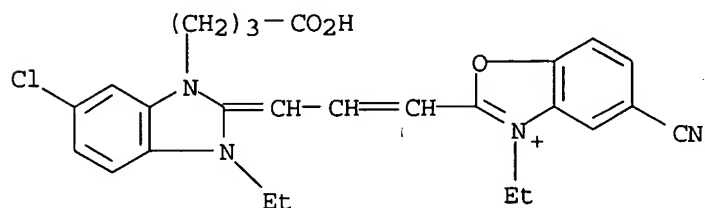
CN Benzoxazolium, 2-[3-[1-(2-carboxyethyl)-5,6-dichloro-3-ethyl-1,3-dihydro-2H-benzimidazol-2-ylidene]-1-propenyl]-3-ethyl-, bromide (9CI) (CA INDEX NAME)



10/665,227

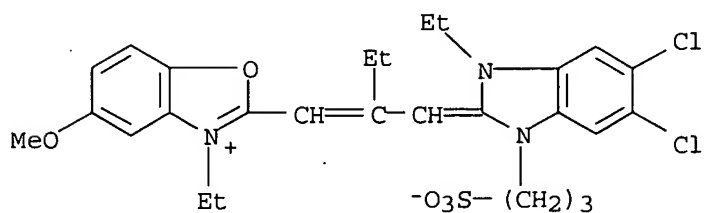
RN 55205-68-0 CAPLUS

CN Benzoxazolium, 2-[3-[3-(3-carboxypropyl)-5-chloro-1-ethyl-1,3-dihydro-2H-benzimidazol-2-ylidene]-1-propenyl]-5-cyano-3-ethyl- (9CI) (CA INDEX NAME)



RN 55205-69-1 CAPLUS

CN Benzoxazolium, 2-[2-[[5,6-dichloro-1-ethyl-1,3-dihydro-3-(3-sulfopropyl)-2H-benzimidazol-2-ylidene]methyl]-1-butenyl]-3-ethyl-5-methoxy-, inner salt (9CI) (CA INDEX NAME)

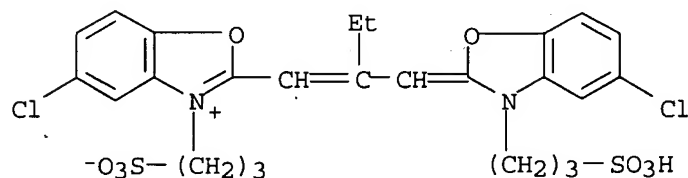


IT 18360-25-3P 18462-64-1P 55205-70-4P

RL: SPN (Synthetic preparation); PREP (Preparation)
(preparation of)

RN 18360-25-3 CAPLUS

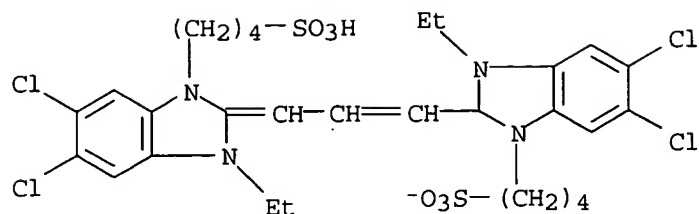
CN Benzoxazolium, 5-chloro-2-[2-[[5-chloro-3-(3-sulfopropyl)-2(3H)-benzoxazolylidene]methyl]-1-butenyl]-3-(3-sulfopropyl)-, inner salt, sodium salt (9CI) (CA INDEX NAME)



● Na

RN 18462-64-1 CAPLUS

CN 1H-Benzimidazolium, 5,6-dichloro-2-[3-[5,6-dichloro-1-ethyl-1,3-dihydro-3-(4-sulfobutyl)-2H-benzimidazol-2-ylidene]-1-propenyl]-1-ethyl-3-(4-sulfobutyl)-, inner salt, sodium salt (9CI) (CA INDEX NAME)

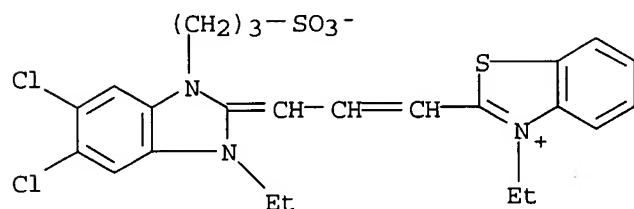


● Na

ONE OR MORE TAUTOMERIC DOUBLE BONDS NOT DISPLAYED IN THE STRUCTURE

RN 55205-70-4 CAPLUS

CN Benzothiazolium, 2-[3-[5,6-dichloro-1-ethyl-1,3-dihydro-3-(3-sulfopropyl)-2H-benzimidazol-2-ylidene]-1-propenyl]-3-ethyl-, inner salt (9CI) (CA INDEX NAME)



GI For diagram(s), see printed CA Issue.

AB The high green sensitivity required for exposures <1 msec (Xe flashlamps, cathode ray tubes) is achieved by adding to the emulsions, preferably at the time of the Ag halide precipitation, $1 + 10^{-6}$ - $1 + 10^{-3}$ mole of $K_3Fe(CN)_6$, $K_4Fe(CN)_6$, $RhCl_3$, $(NH_4)_3RhCl_6$, $IrCl_4$, or K_2IrCl_6 and besides 10^{-4} - $5 + 10^{-3}$ mole of an oxa-, imida-, or oximidacarbocyanine with 1 or 2 N-carboxyalkyl or N-sulfoalkyl groups. Thus, by adding during the precipitation of a Ag(Cl,Br) emulsion 3×10^{-6} mole $(NH_4)_3RhCl_6$ and after ripening

$2 + 10^{-5}$ mole $PtCl_4$ and $8 + 10^{-3}$ mole I a green speed of 237 at 0.01 sec and of 246 at 1 μ sec were obtained.

L7 ANSWER 62 OF 62 CAPLUS COPYRIGHT 2005 ACS on STN

ACCESSION NUMBER: 1969:23024 CAPLUS

DOCUMENT NUMBER: 70:23024

TITLE: Calculation of ionization energies from redox potentials

AUTHOR(S): Stanienda, Alfred

CORPORATE SOURCE: Humboldt Univ., Berlin, Fed. Rep. Ger.

SOURCE: Zeitschrift fuer Naturforschung, Teil B: Anorganische Chemie, Organische Chemie, Biochemie, Biophysik, Biologie (1968), 23(10), 1285-95
CODEN: ZENBAX; ISSN: 0044-3174

DOCUMENT TYPE: Journal

LANGUAGE: German

IT 22268-64-0 22268-65-1 22268-66-2

RL: PRP (Properties)
(ionization energy of)

RN 22268-64-0 CAPLUS

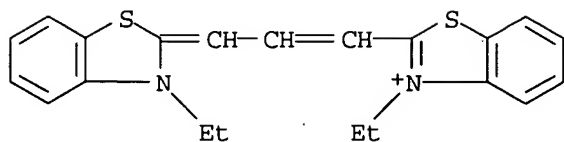
CN Benzothiazolium, 3-ethyl-2-[3-(3-ethyl-2(3H)-benzothiazolylydene)-1-propenyl]-, perchlorate (9CI) (CA INDEX NAME)

10/665,227

CM 1

CRN 18403-49-1

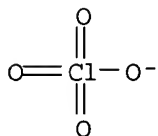
CMF C21 H21 N2 S2



CM 2

CRN 14797-73-0

CMF Cl O4



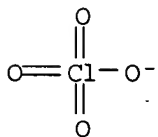
RN 22268-65-1 CAPLUS

CN Benzothiazolium, 3-ethyl-2-[5-(3-ethyl-2(3H)-benzothiazolylidene)-1,3-pentadienyl]-, perchlorate (9CI) (CA INDEX NAME)

CM 1

CRN 14797-73-0

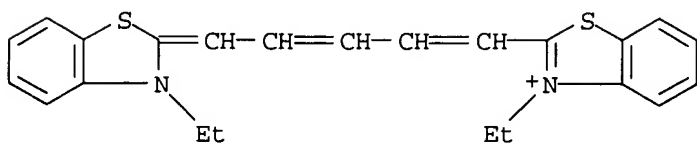
CMF Cl O4



CM 2

CRN 7187-55-5

CMF C23 H23 N2 S2



RN 22268-66-2 CAPLUS

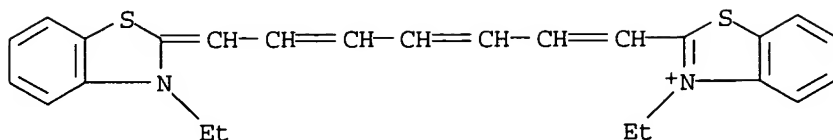
CN Benzothiazolium, 3-ethyl-2-[7-(3-ethyl-2(3H)-benzothiazolylidene)-1,3,5-heptatrienyl]-, perchlorate (9CI) (CA INDEX NAME)

10/665,227

CM 1

CRN 23178-68-9

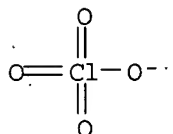
CMF C25 H25 N2 S2



CM 2

CRN 14797-73-0

CMF Cl O4



AB The ionization energies and electron affinities of 21 organic compds. and 29 metals were calculated from reversible anodic and cathodic half-wave potentials, solvation energies, and the electron work function potential of the electrode metal. The solvation energies were calculated by using a modified Born equation in which the mol. radius was corrected for the ionization energy. The calculated electron affinities do not agree with previously published values but are equal to the difference in energy between the 1st excited state and the ionization potential. The electron work function potential of Pt was measured by an indirect method and is 4.43 ev.

=> log y

COST IN U.S. DOLLARS

SINCE FILE

TOTAL

ENTRY

SESSION

FULL ESTIMATED COST

323.48

485.72

DISCOUNT AMOUNTS (FOR QUALIFYING ACCOUNTS)

SINCE FILE

TOTAL

ENTRY

SESSION

CA SUBSCRIBER PRICE

-45.26

-45.26

STN INTERNATIONAL LOGOFF AT 12:04:42 ON 01 MAR 2005